

FIG. 1

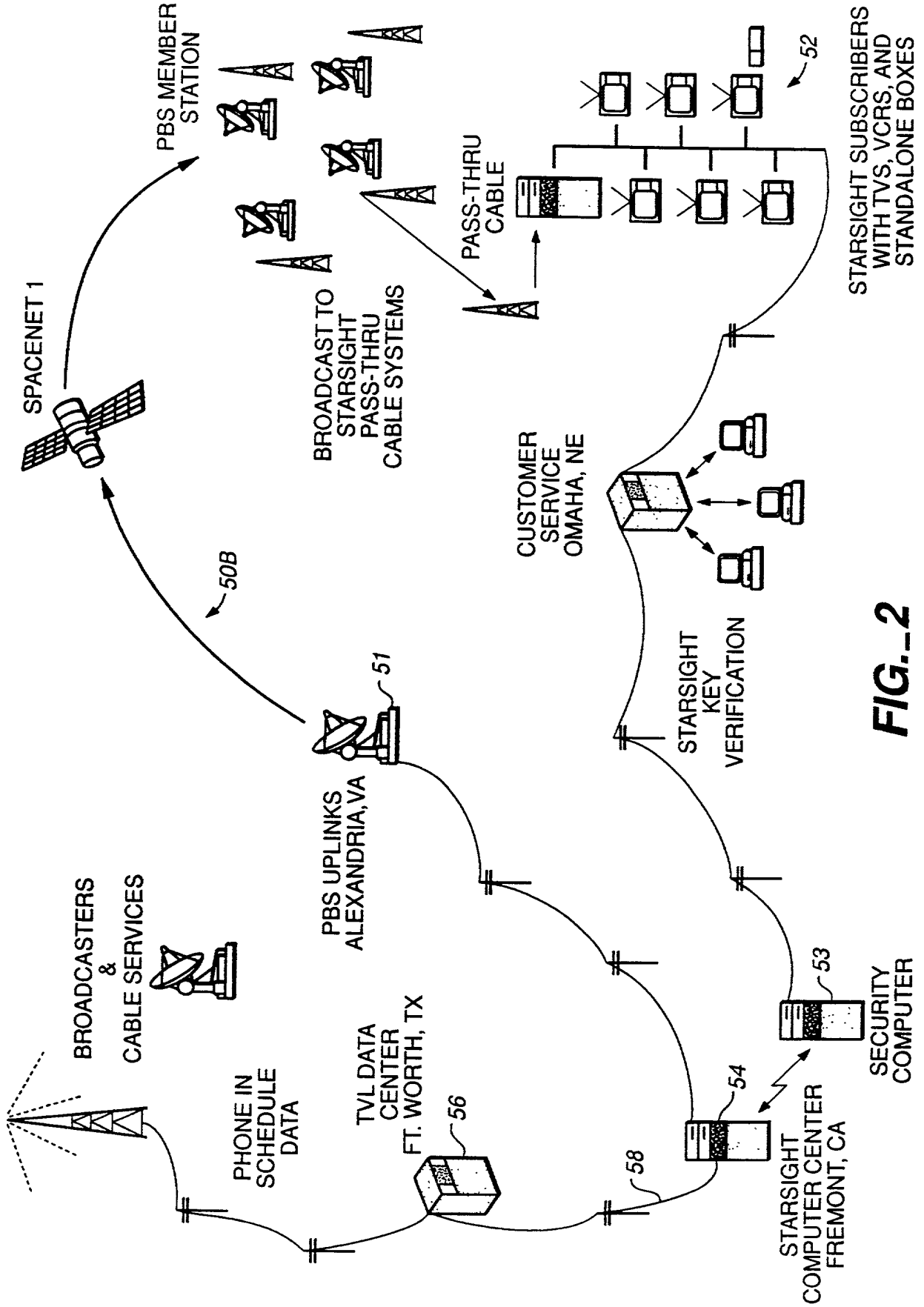


FIG.-2

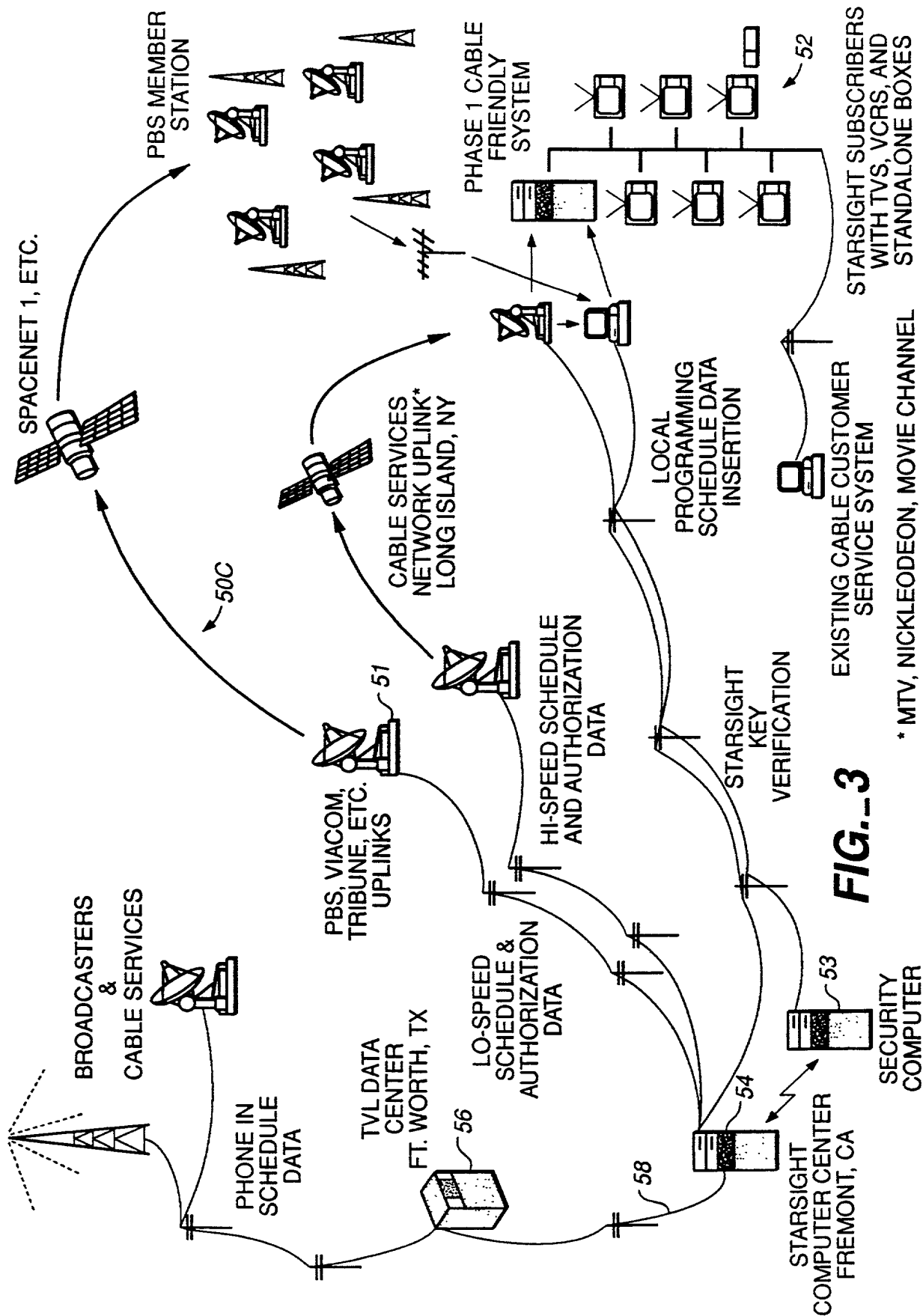


FIG. 3

* MTV, NICKLEODEON, MOVIE CHANNEL



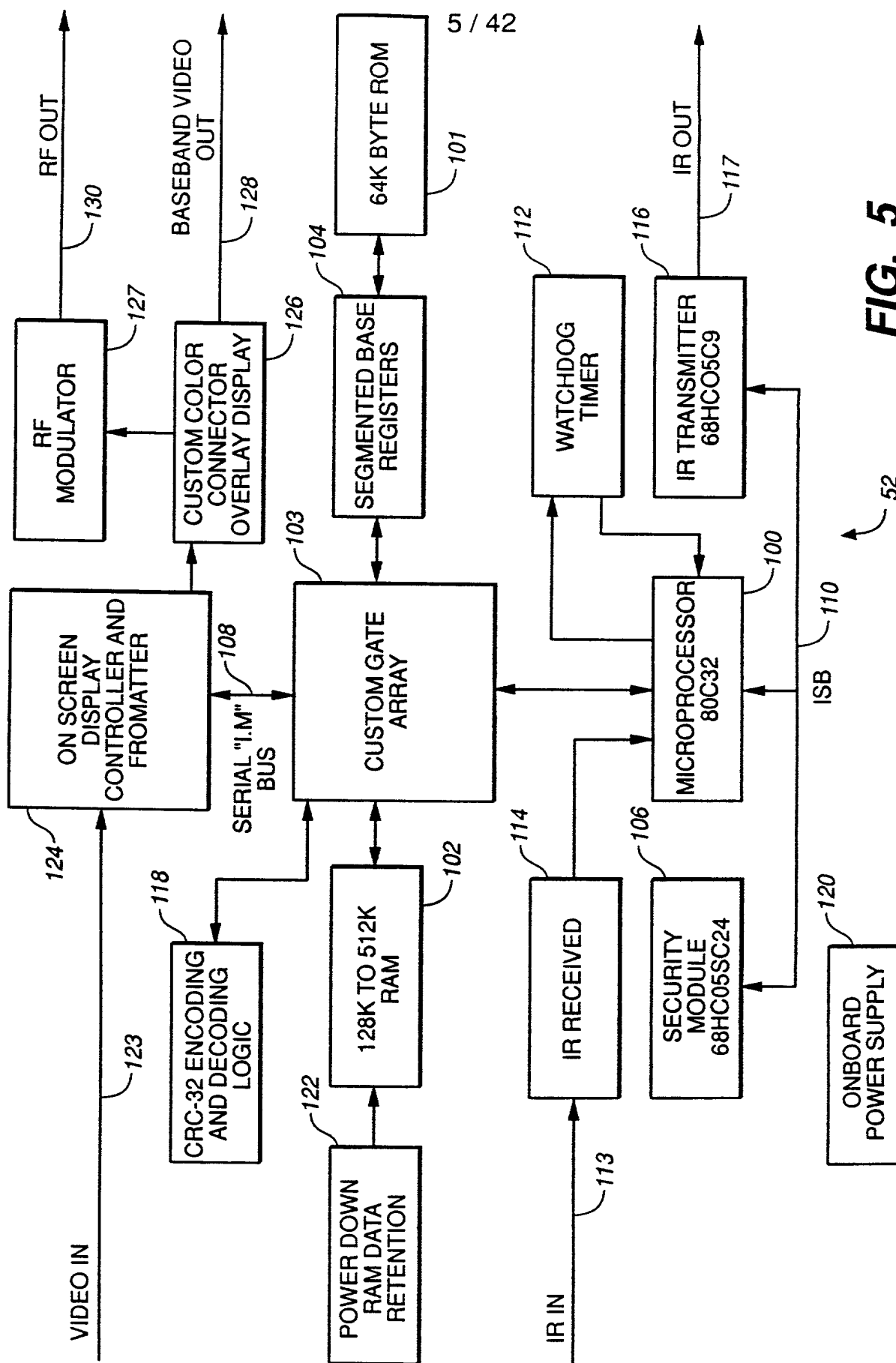
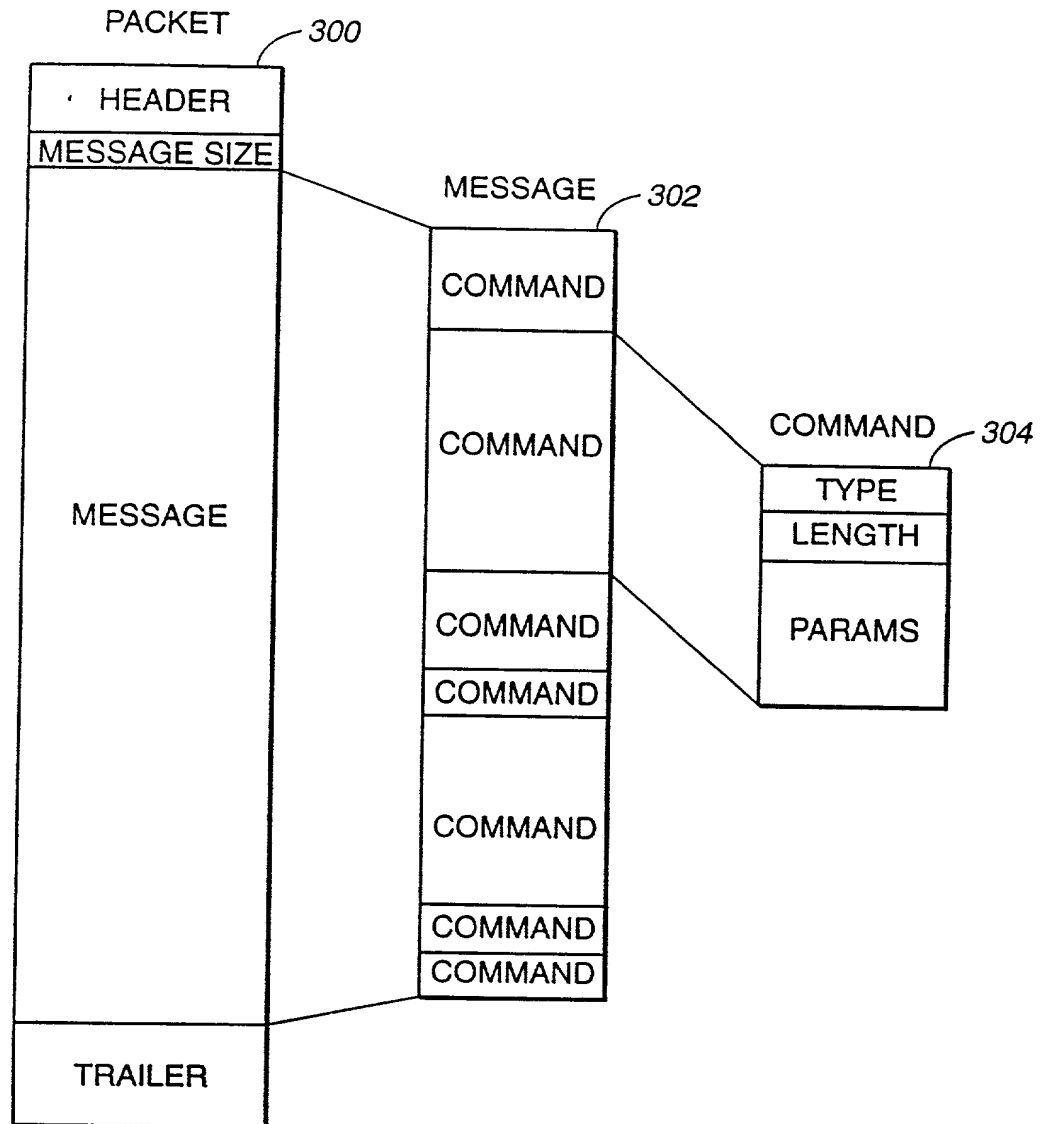


FIG. 5

**FIG._6**

PACKET

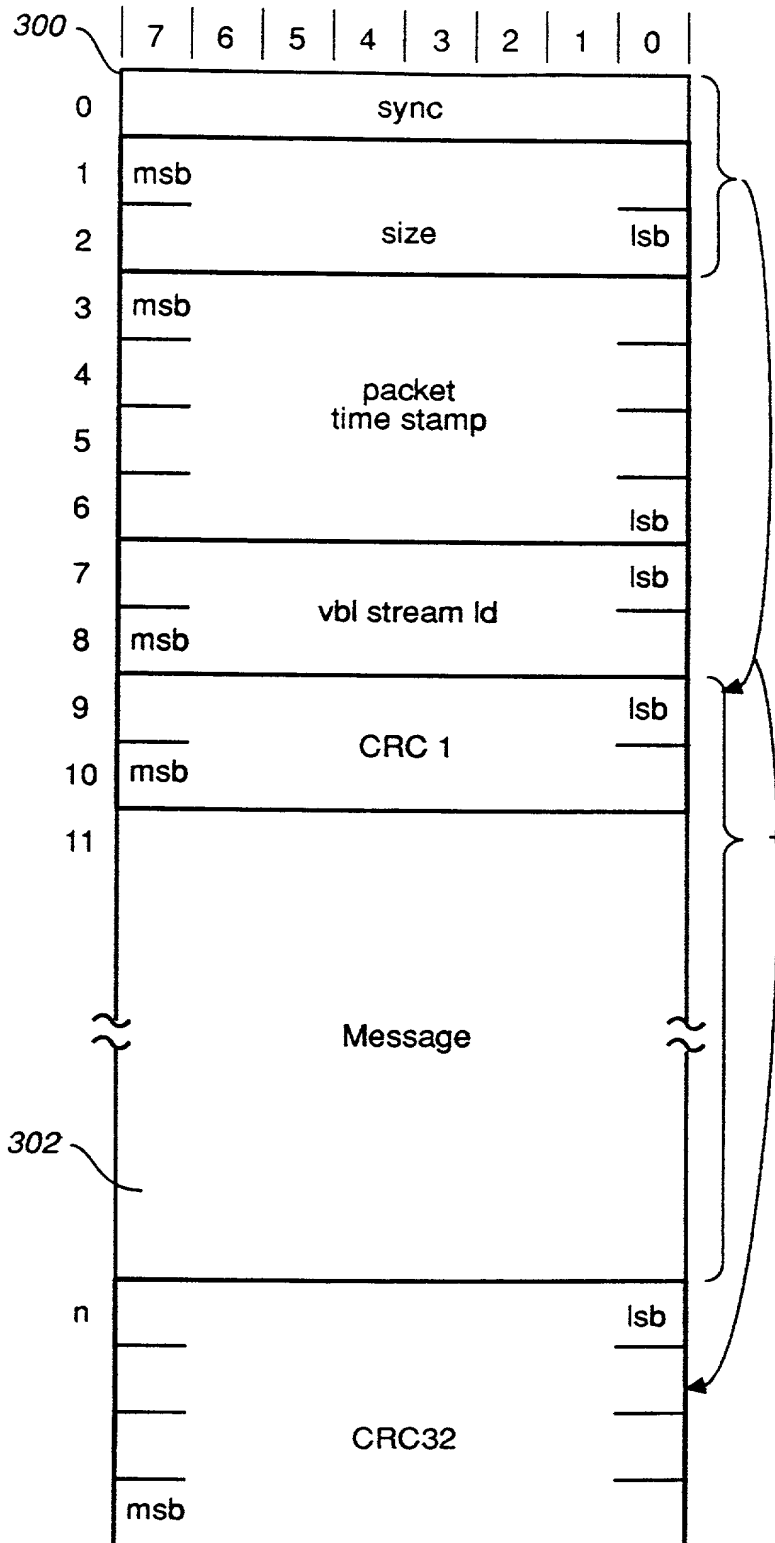
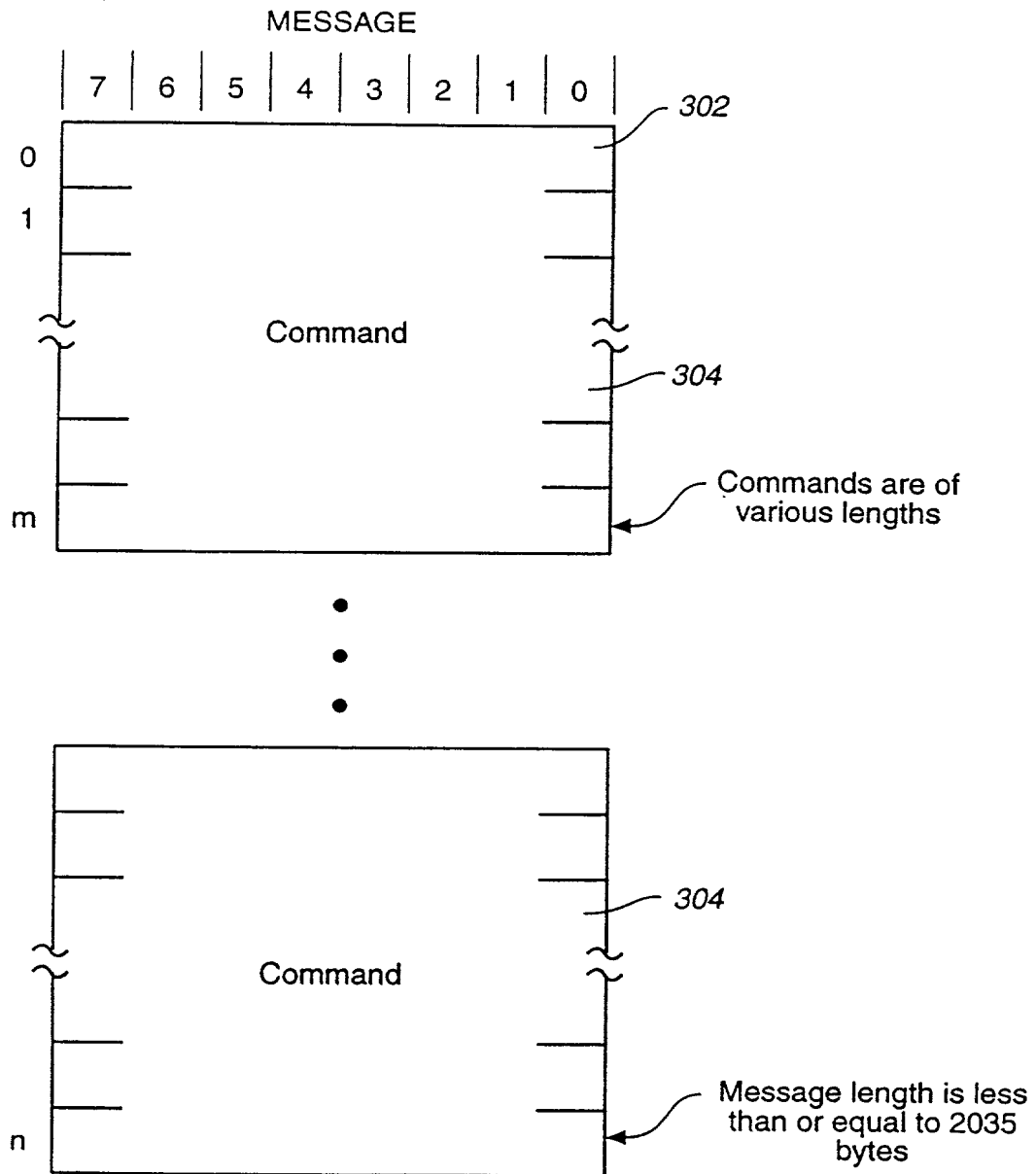
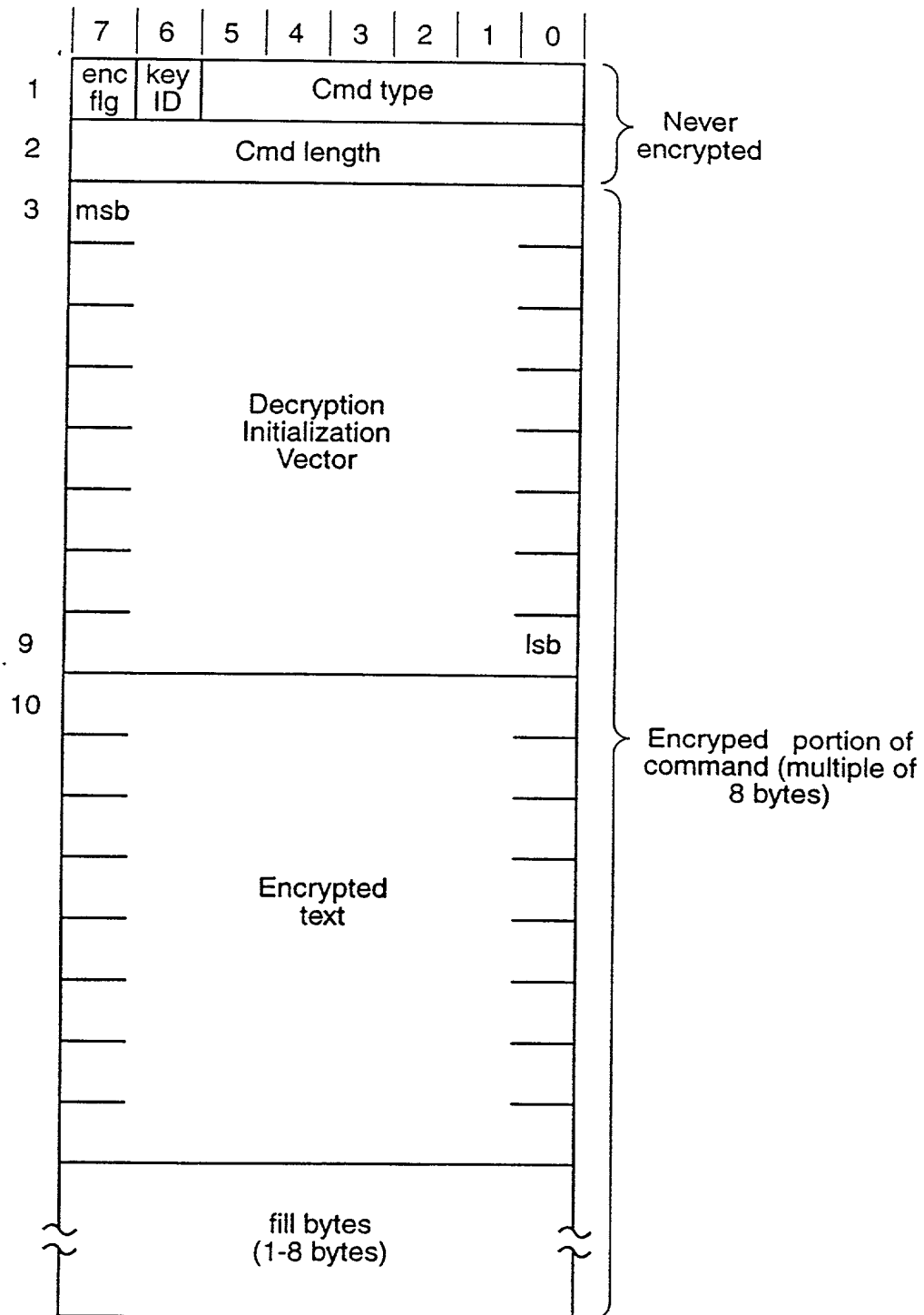
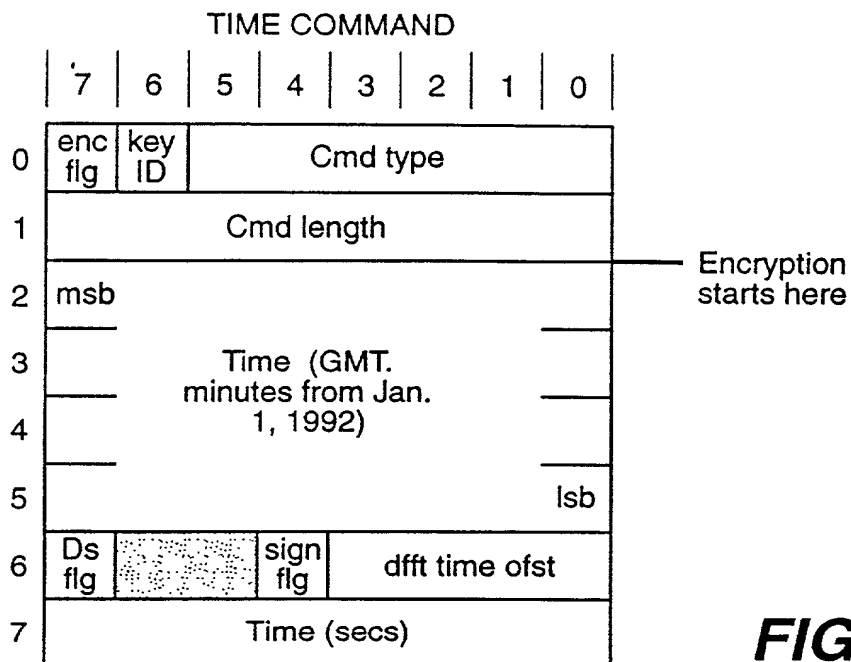
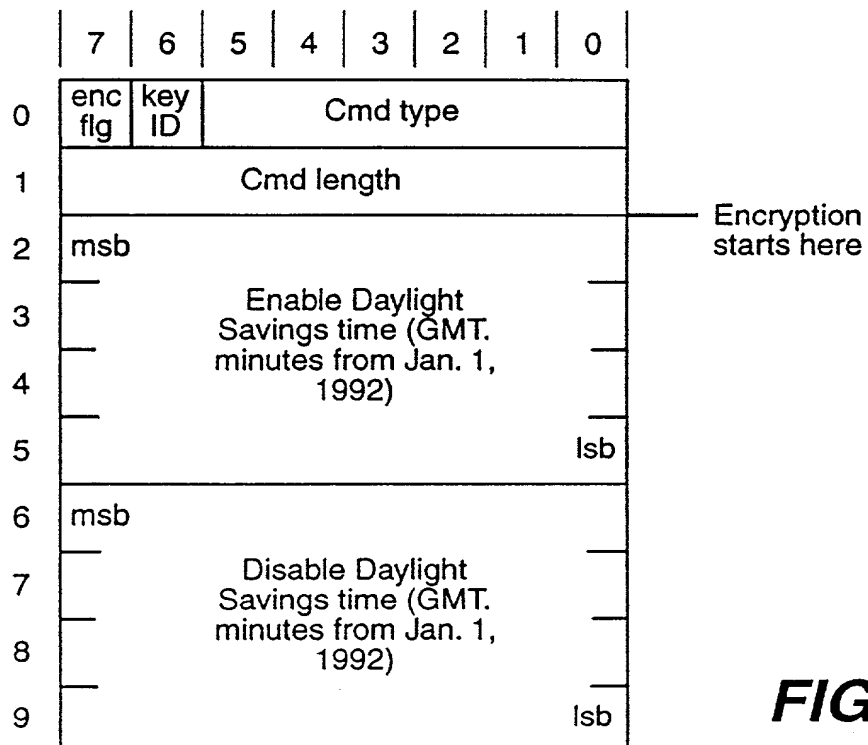


FIG. 7

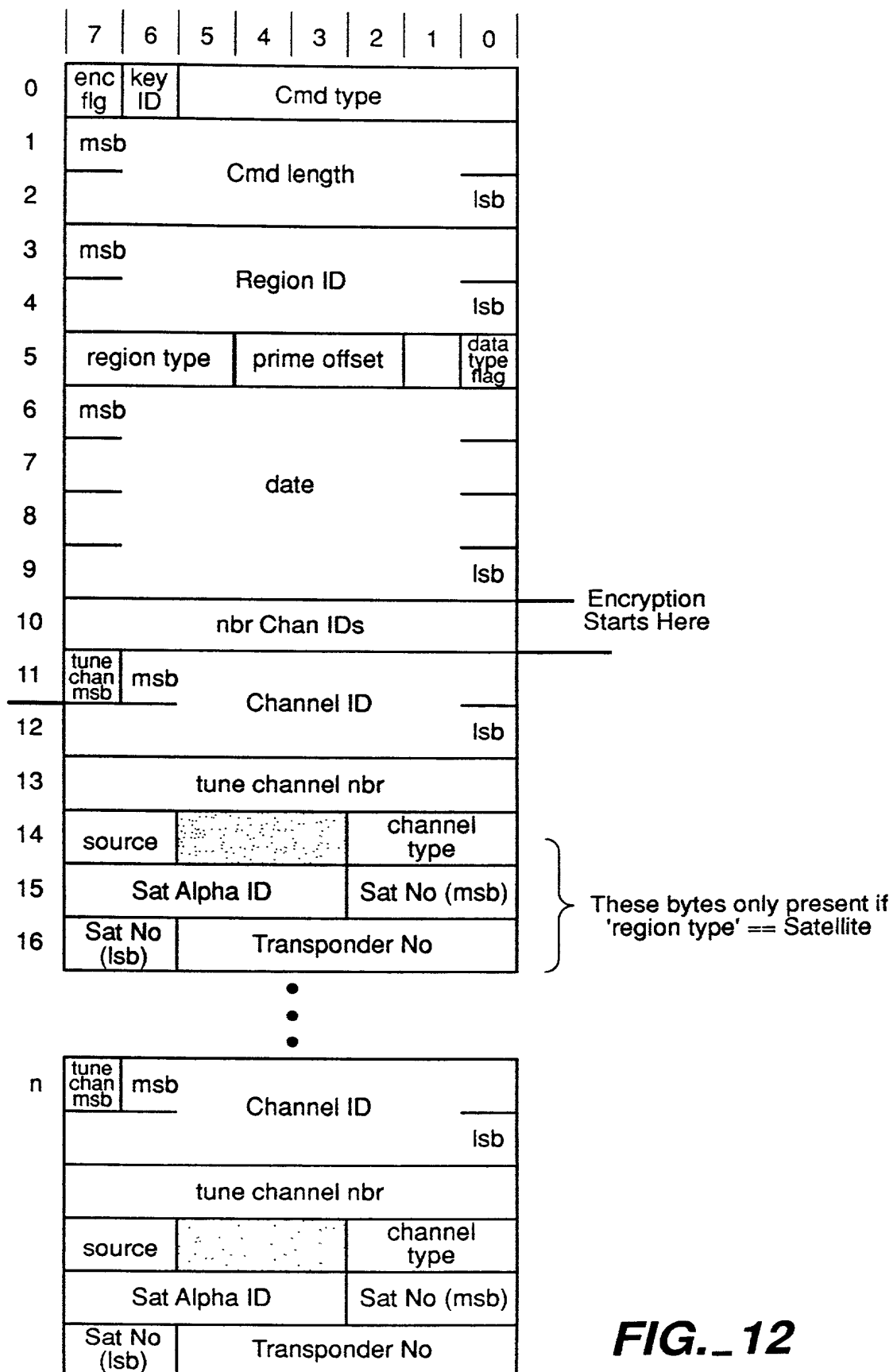
**FIG._8**

GENERAL ENCRYPTED COMMAND FORMAT

**FIG. 9**

**FIG._10****DAYLIGHT SAVING TIME CHANGE COMMAND****FIG._11**

REGION COMMAND

**FIG._12**

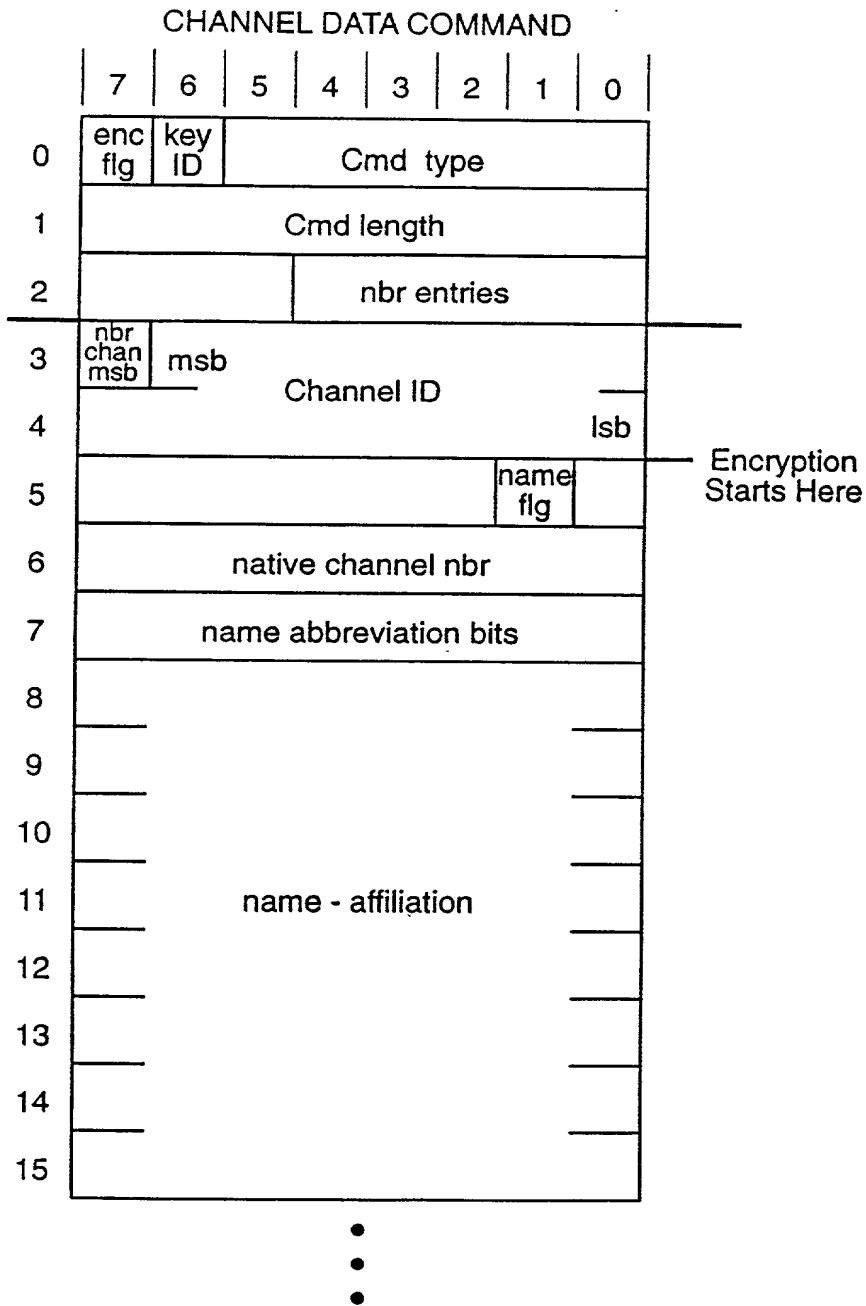
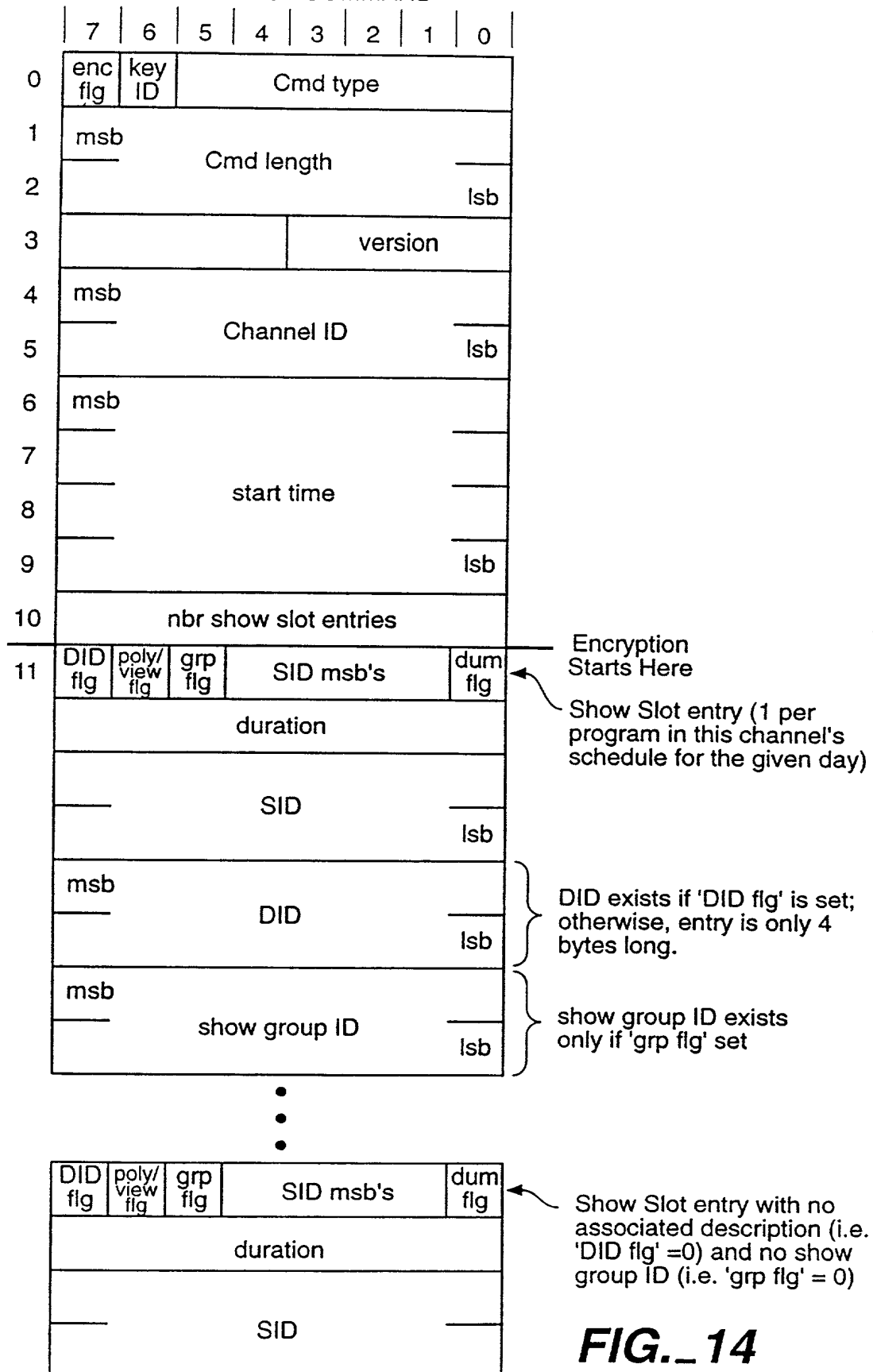


FIG._13

SHOWLIST COMMAND

**FIG. 14**

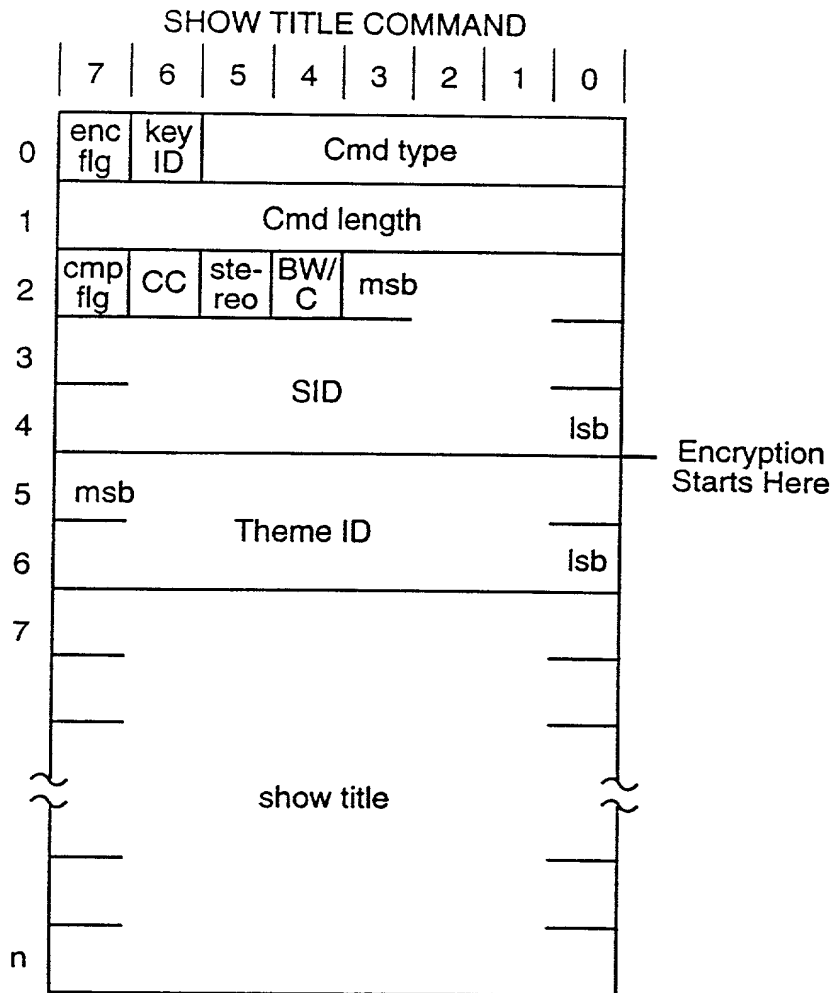
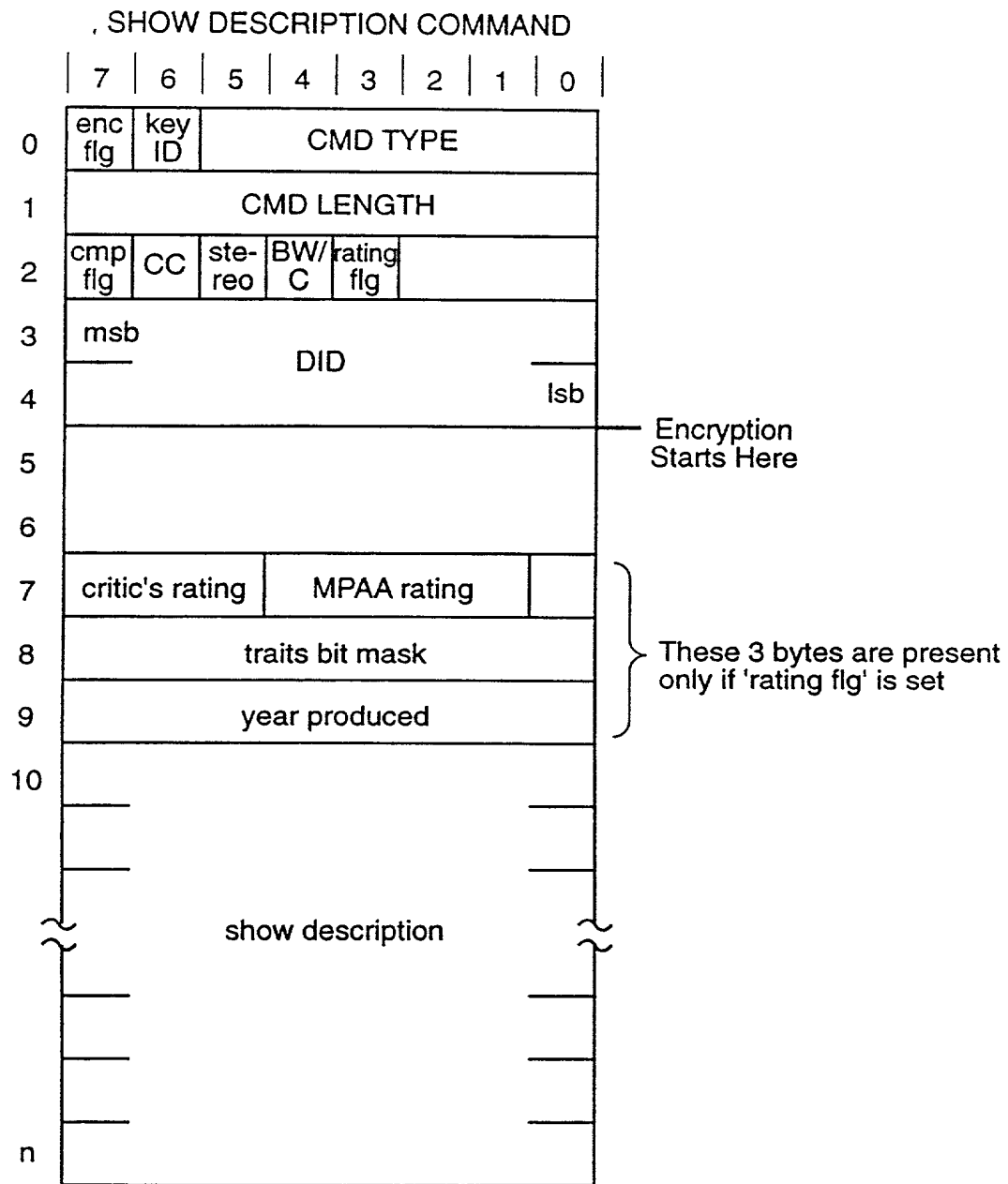
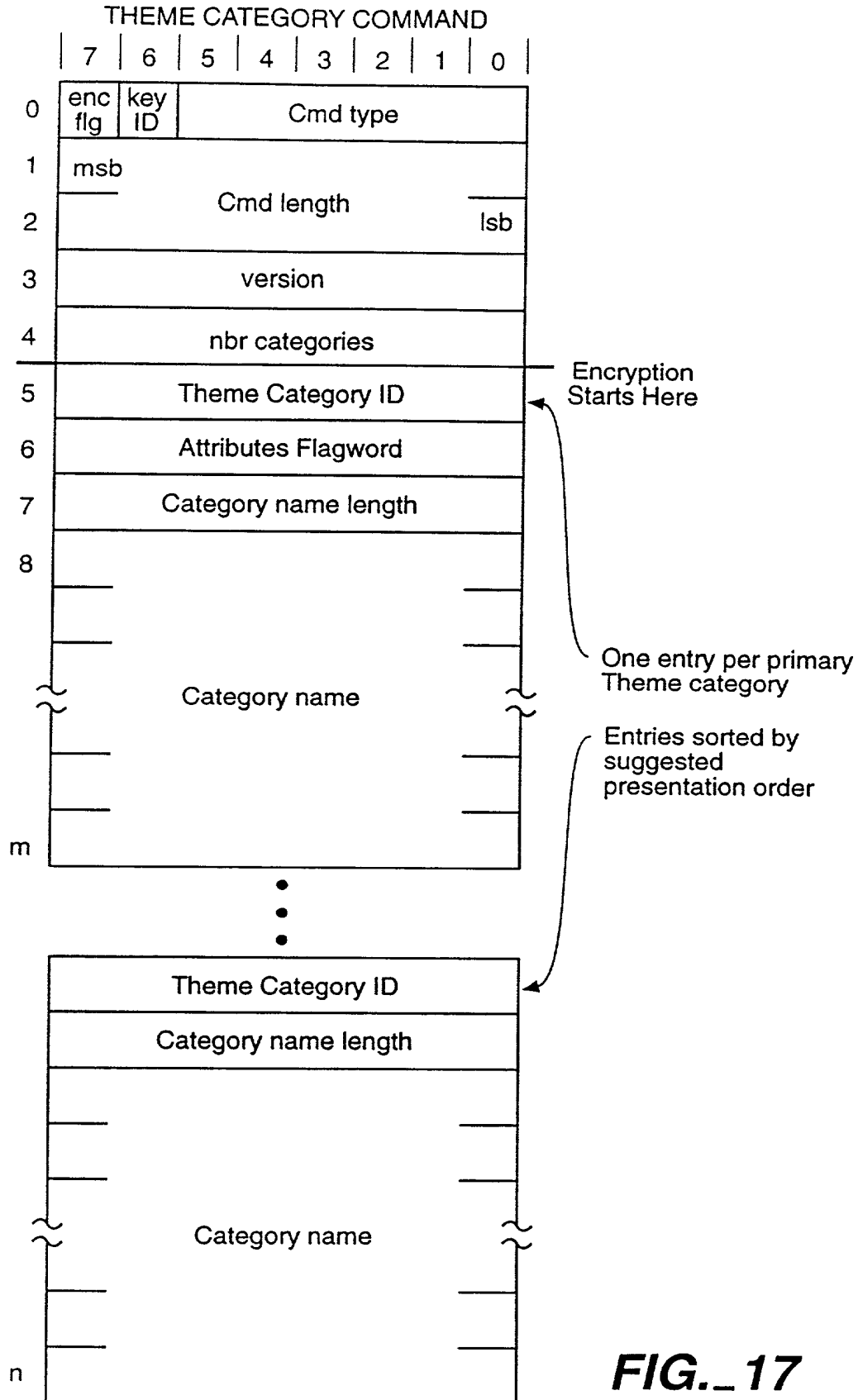
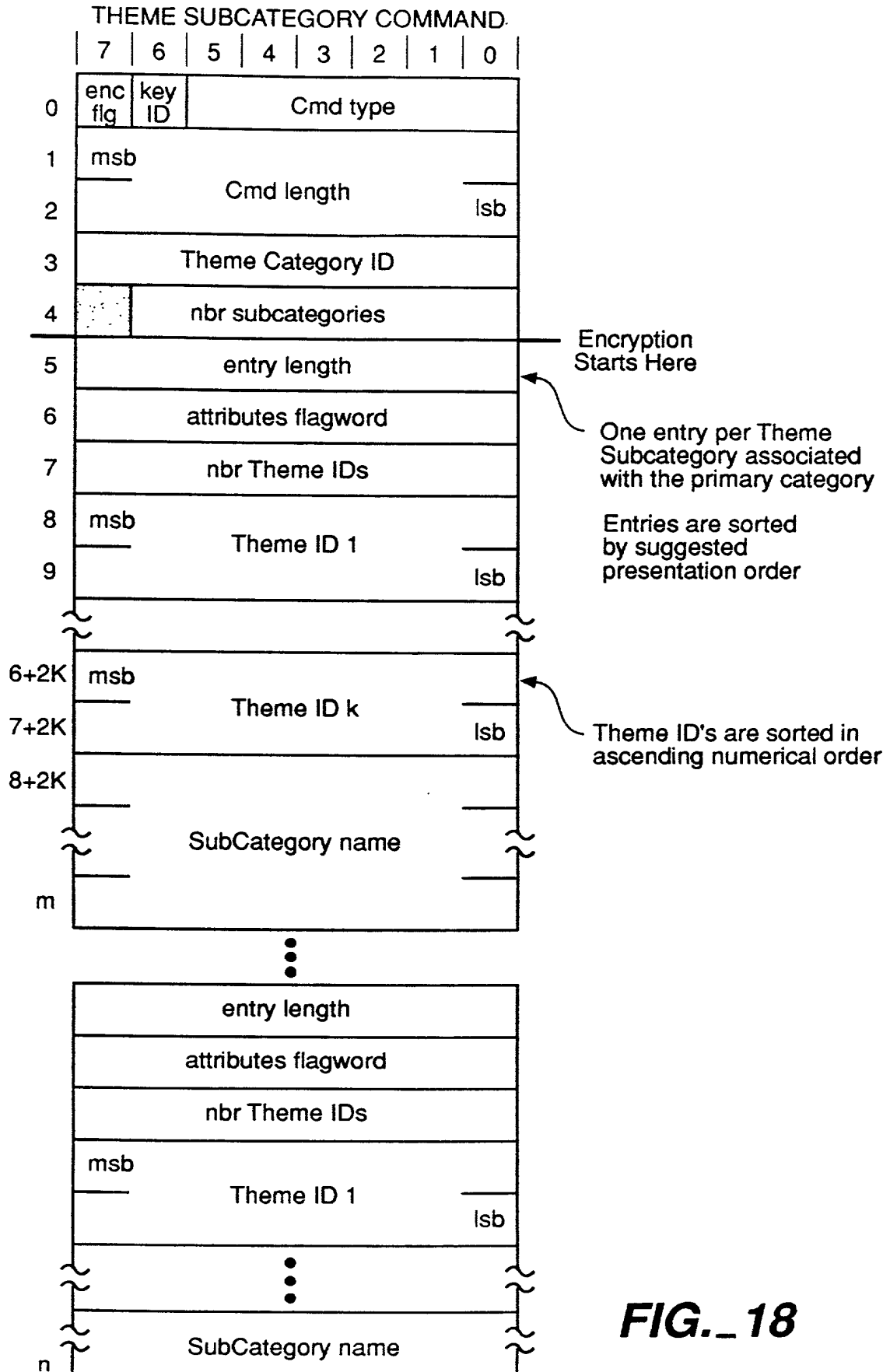


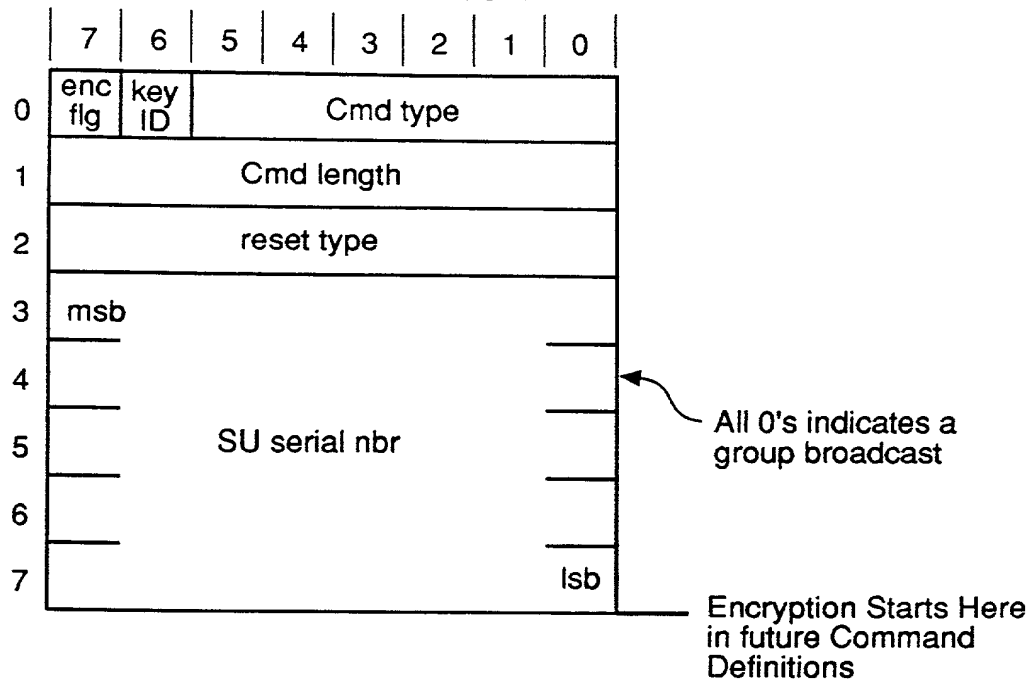
FIG._15

**FIG. 16**

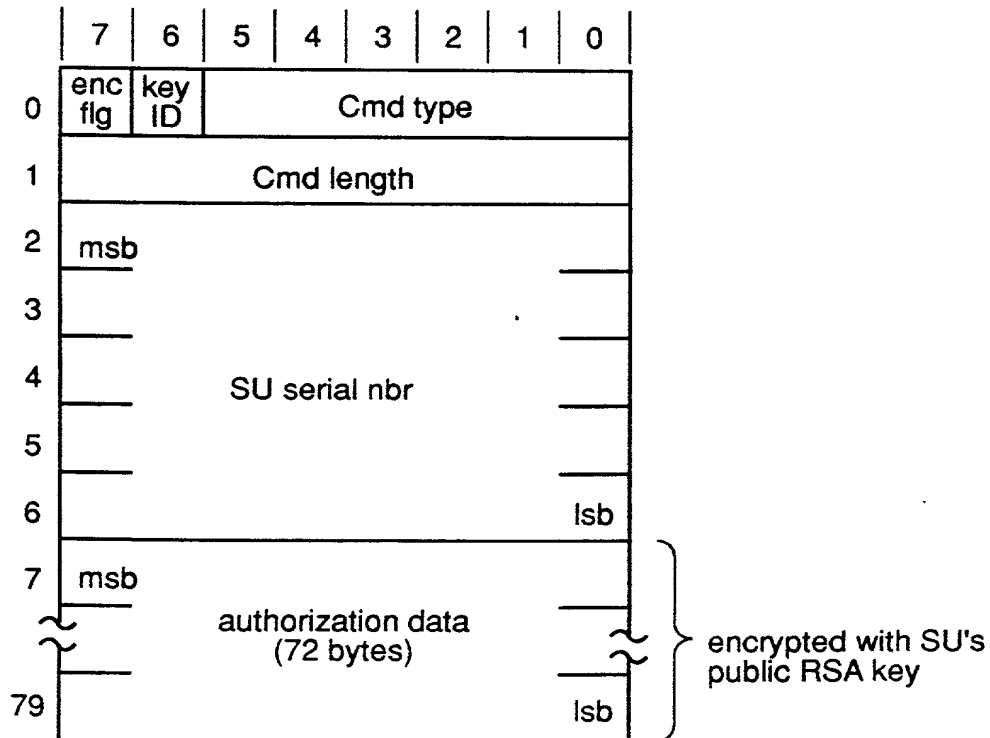
**FIG._17**

**FIG._18**

SUBSCRIBER UNIT RESET COMMAND

**FIG._19**

AUTHORIZATION COMMAND

**FIG._20**

AUTHORIZATION COMMAND 'AUTHORIZATION
FIELD'(NOT ENCRYPTED)

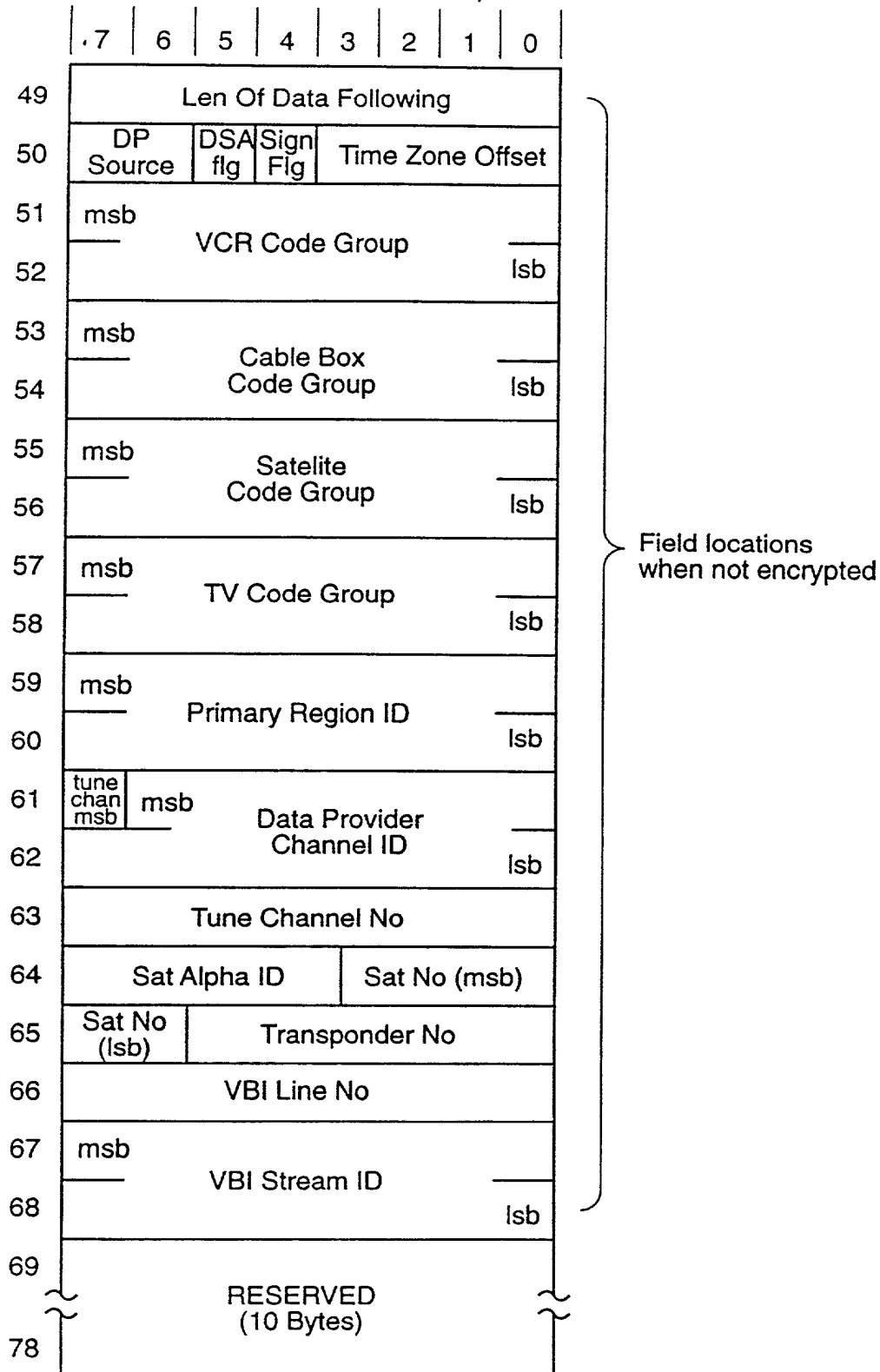


FIG._21

AUTHORIZATION COMMAND 'AUTHORIZATION
FIELD'(NOT ENCRYPTED)

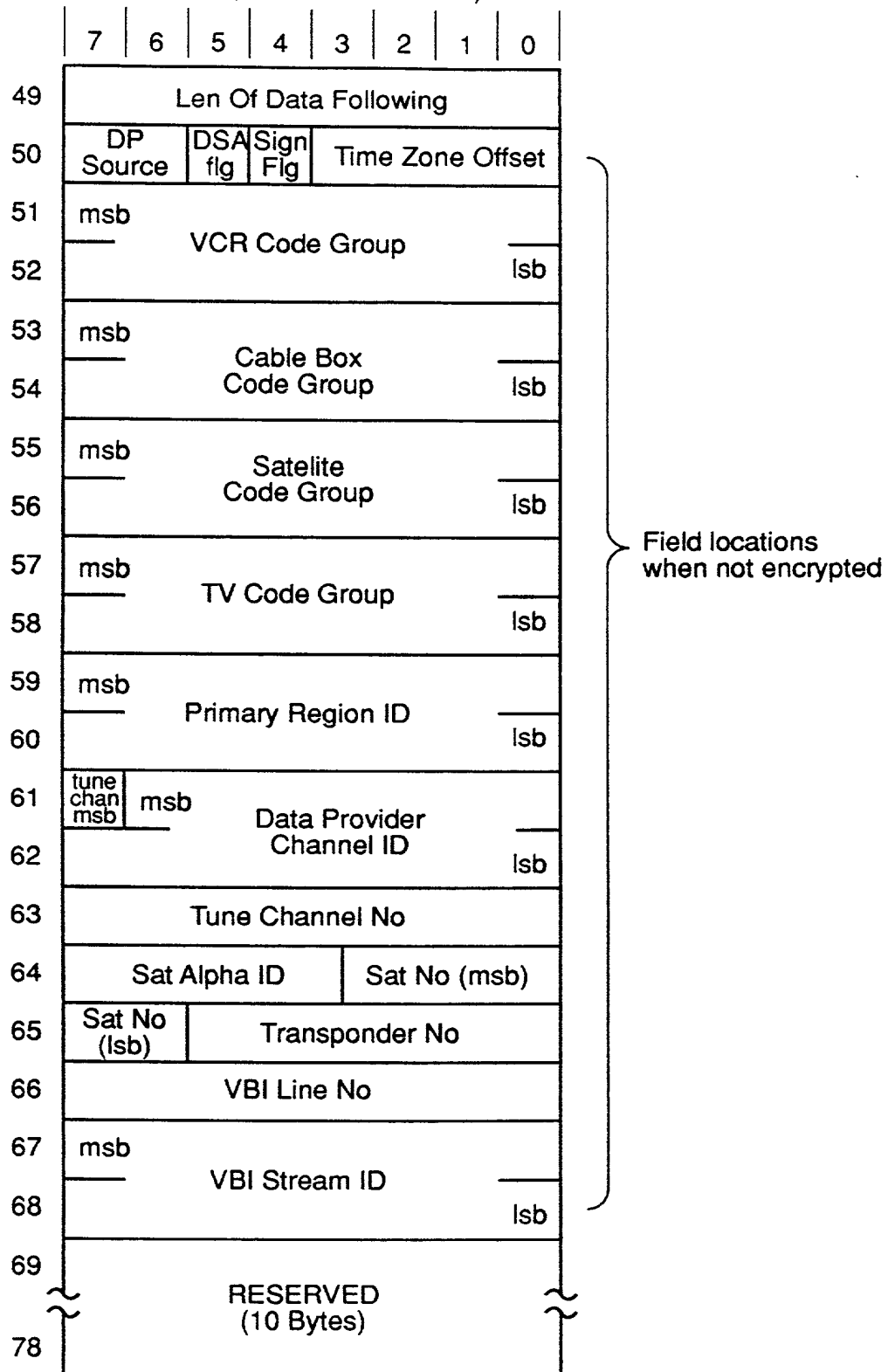
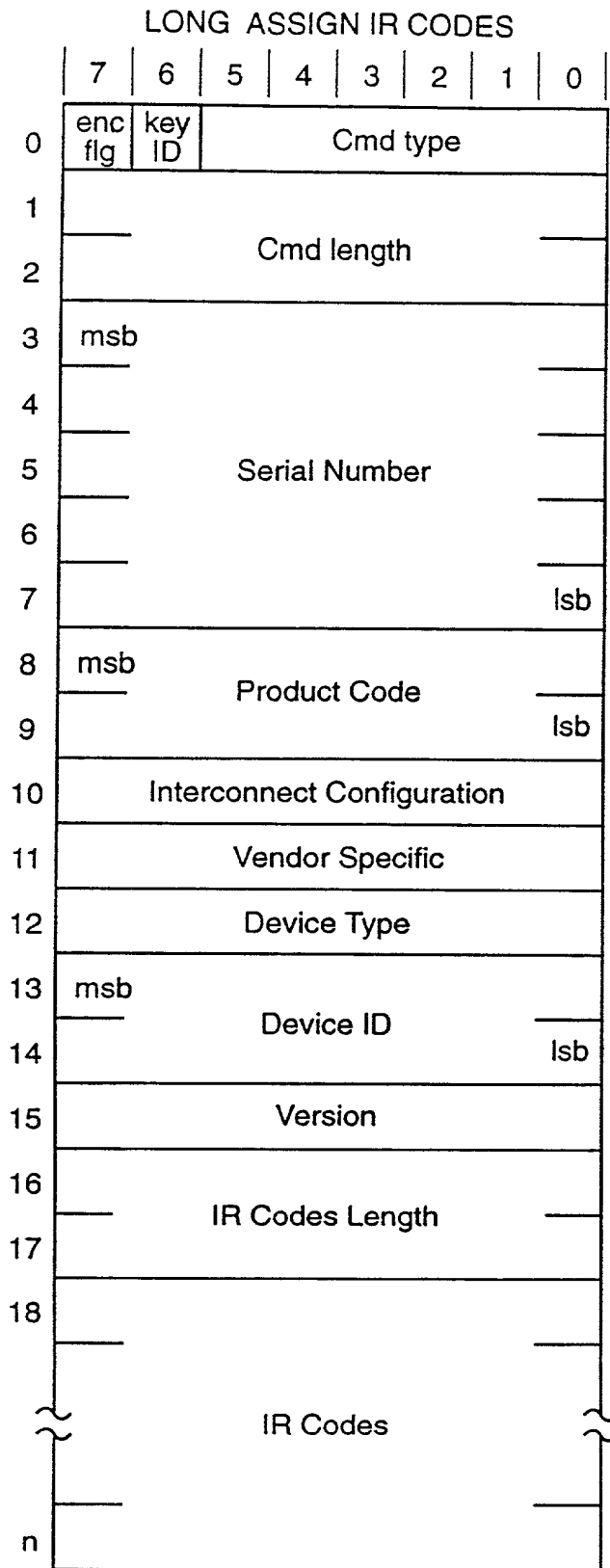


FIG._22



Serial Number = 0
means command applies
to all units having a
matching Product Code,
Device Type, and Device
ID.

Interconnect Configuration =
0xFF means keep the user's
current interconnect
configuration.

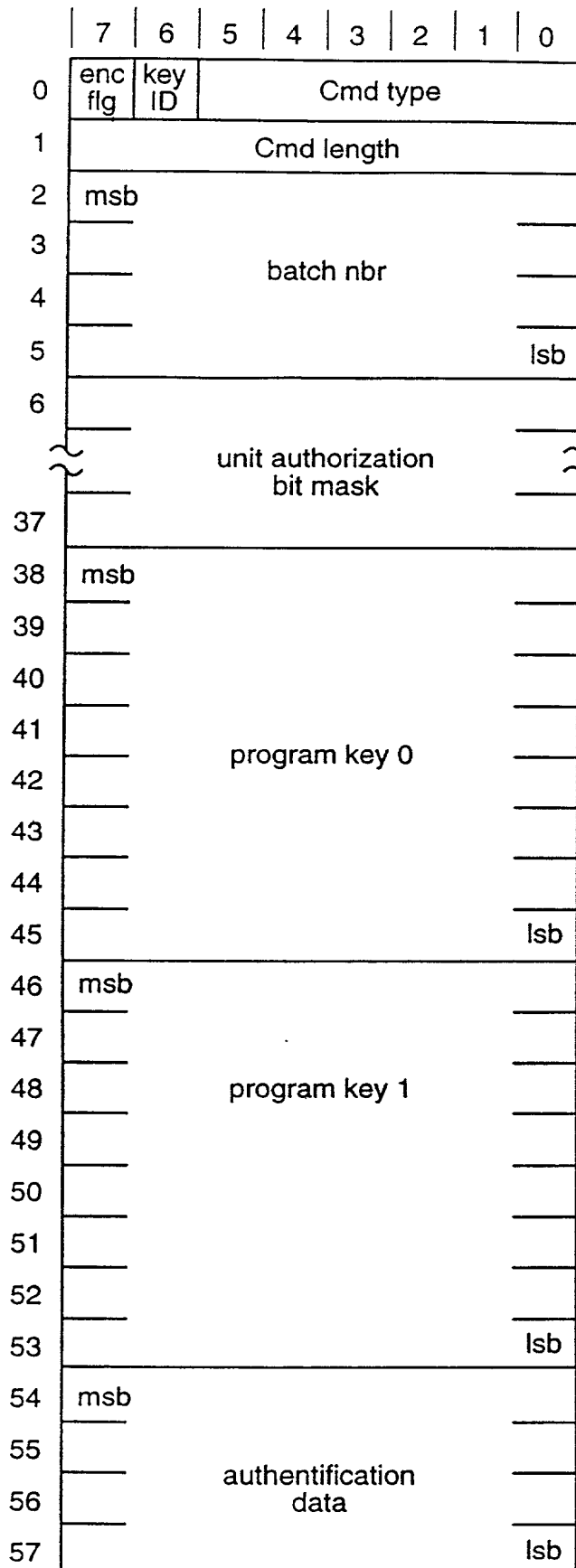
Vendor Specific field value
depends on the Product
Code. E.g. for Zenith TVs
this is the Tune Method.

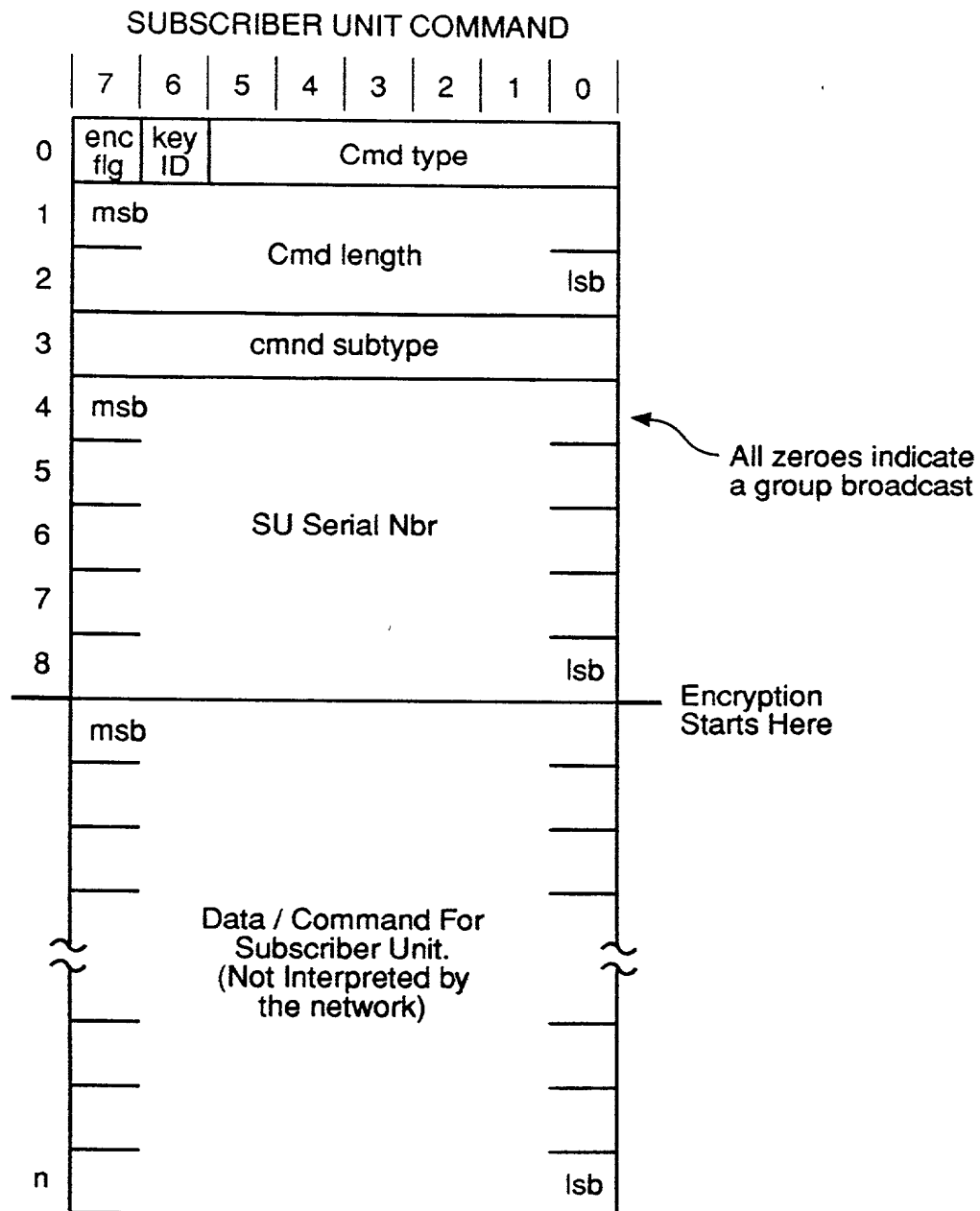
IR Codes Length = 0 means set
the appropriate code group and
system interconnect
configuration values only. i.e.
don't download IR codes to the
URC chip.

Structure within the IR Codes
field is determined by the
Universal Remote Control chip
vendor.

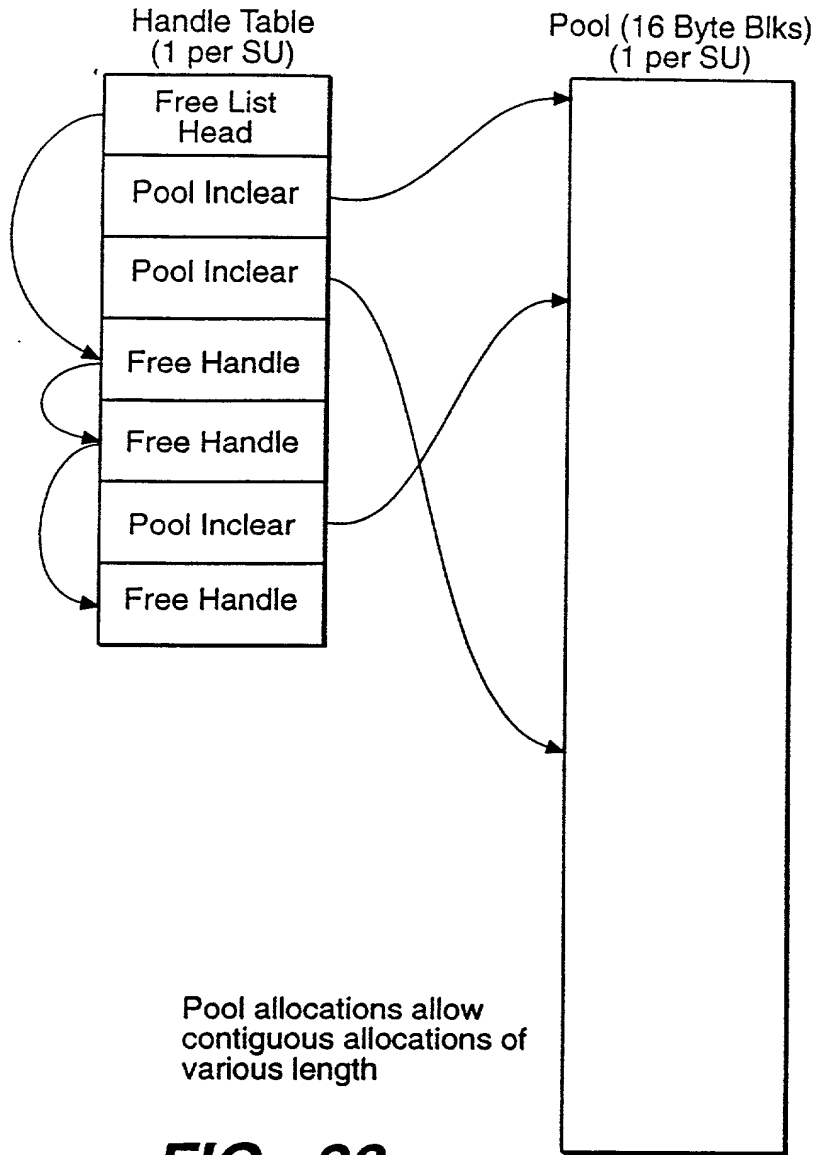
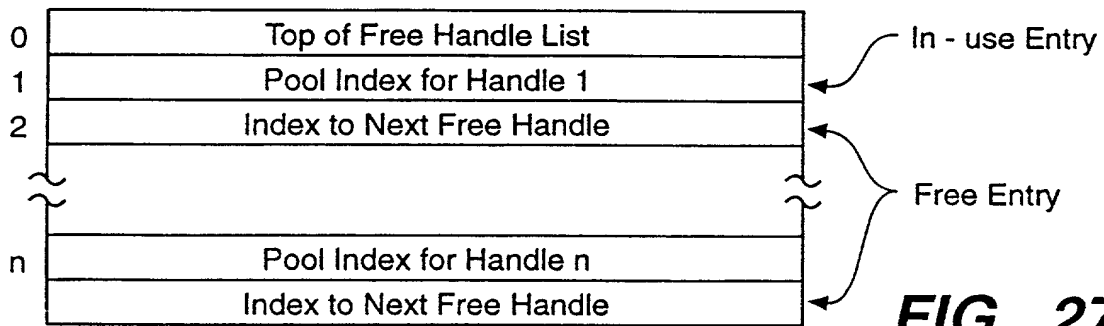
FIG. 23

KEY DISTRIBUTION COMMAND



**FIG._25**

DATABASE MEMORY POOL ACCESS SCHEME

**FIG._26****FIG._27**

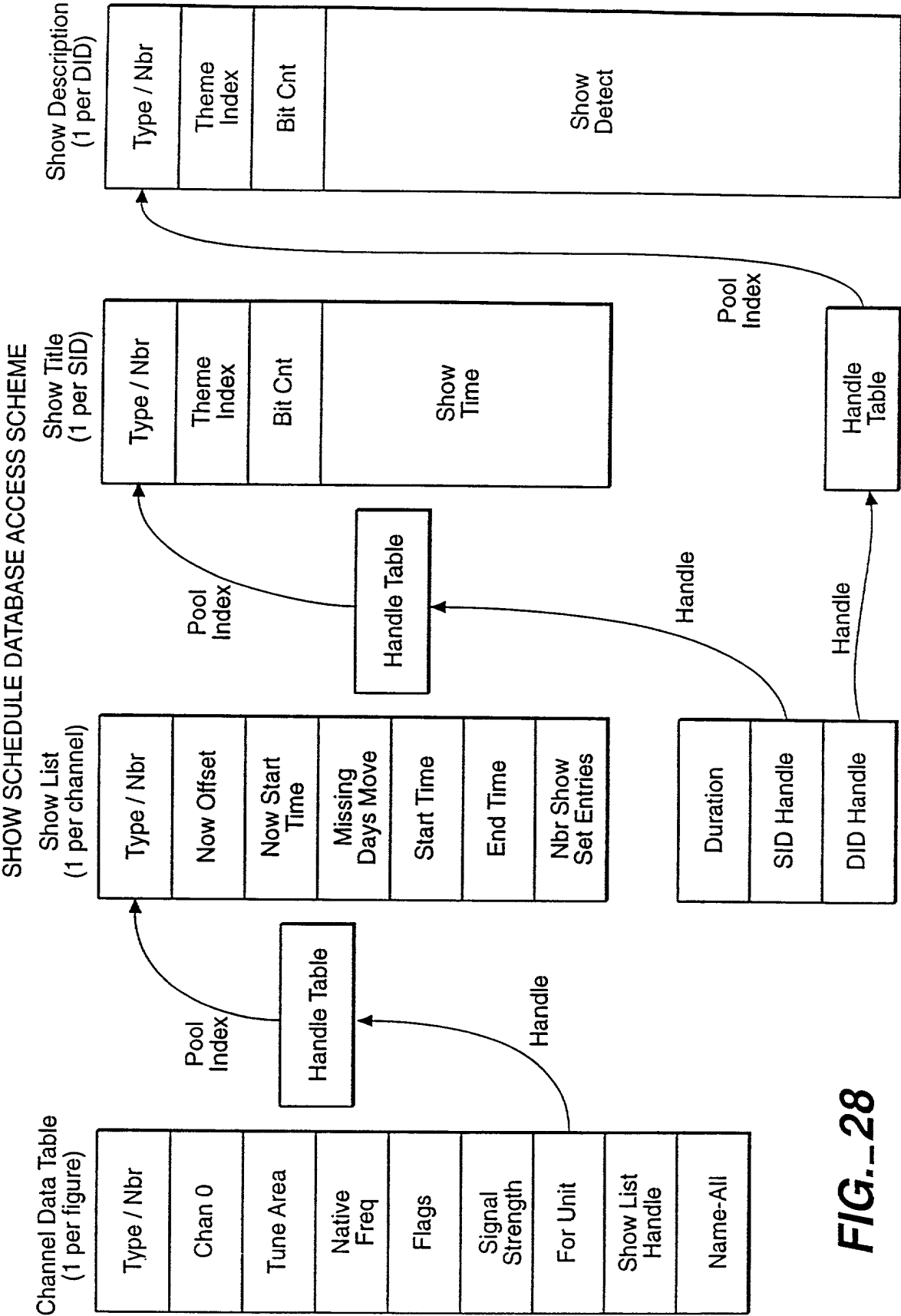
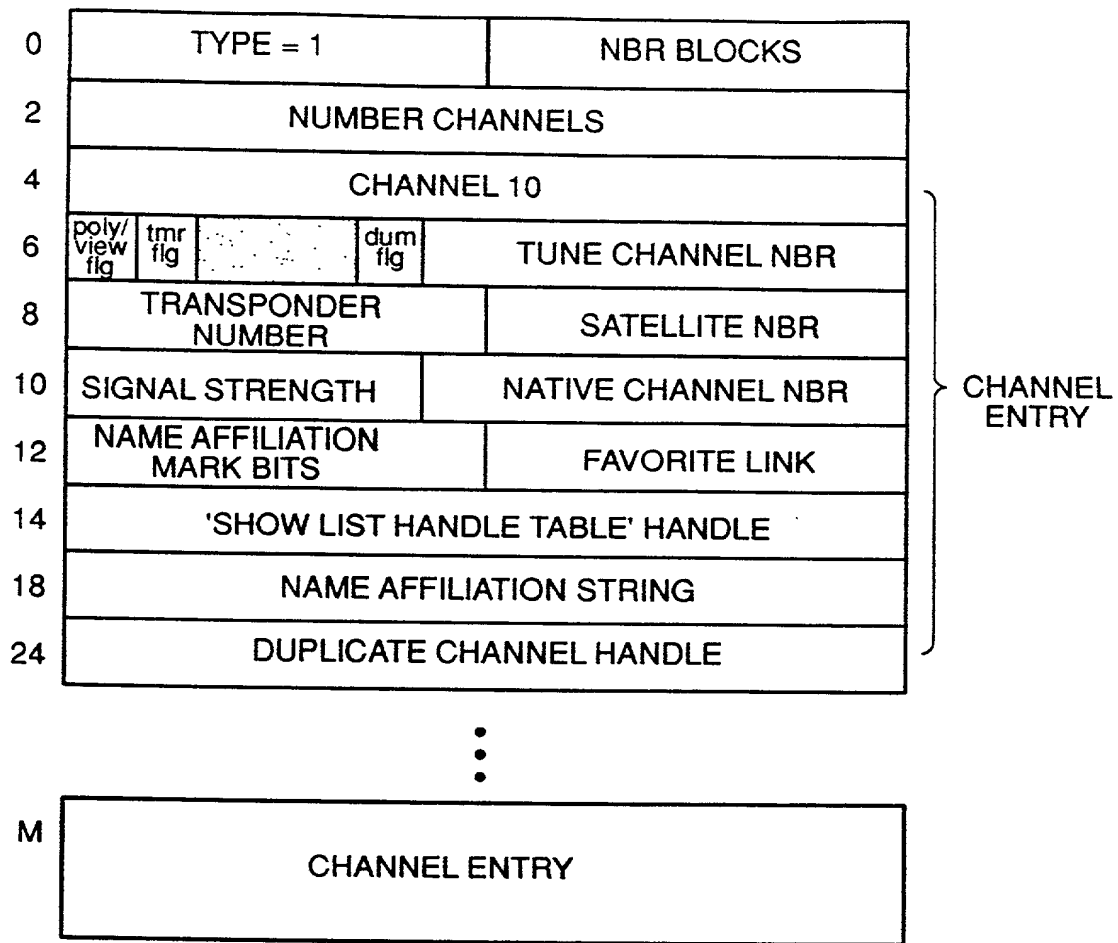
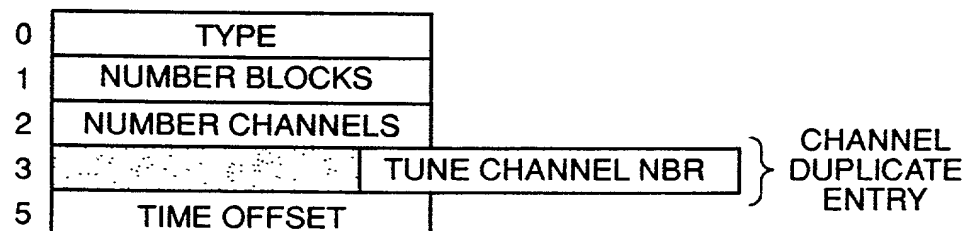


FIG._28

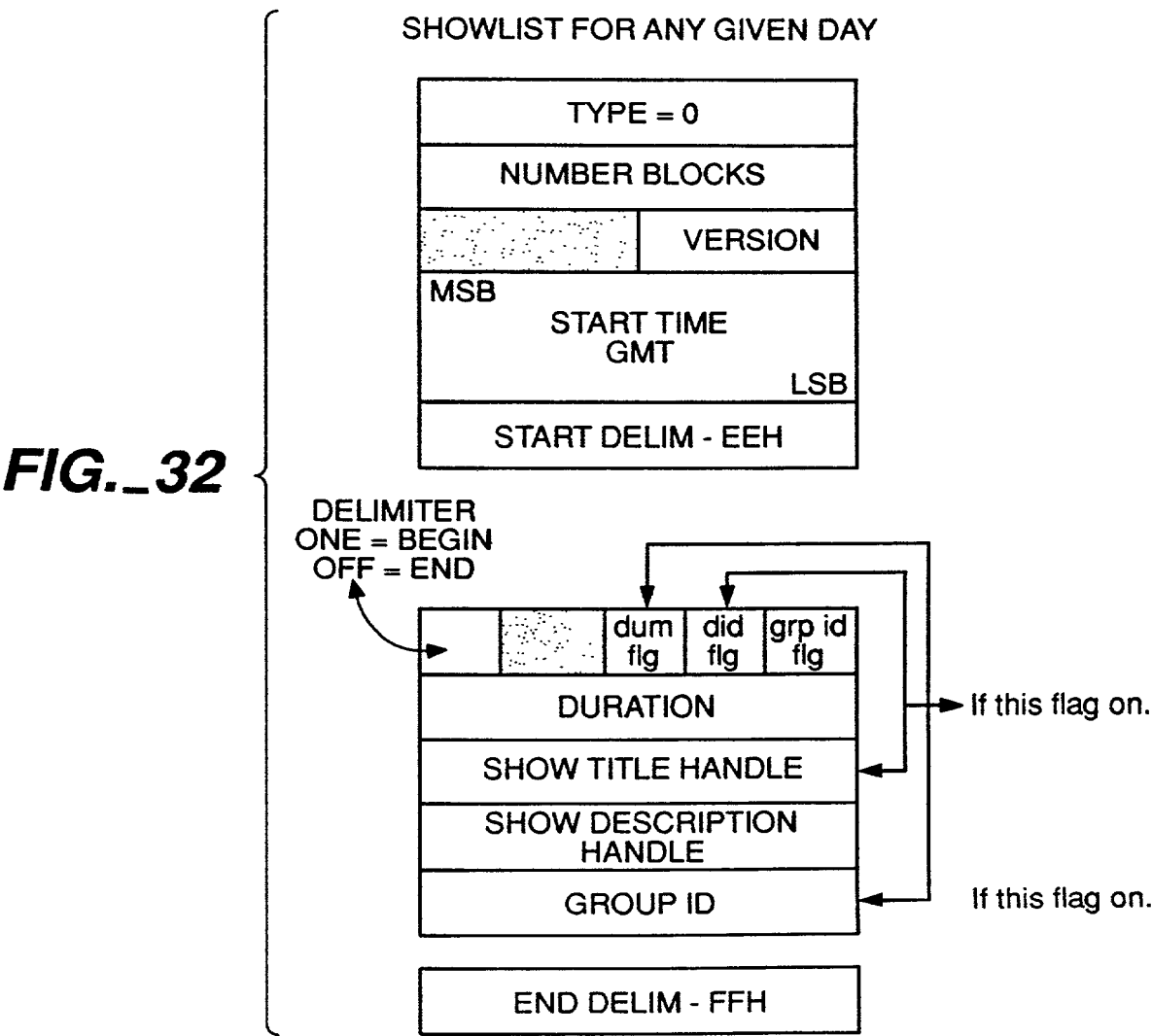
**FIG._29**

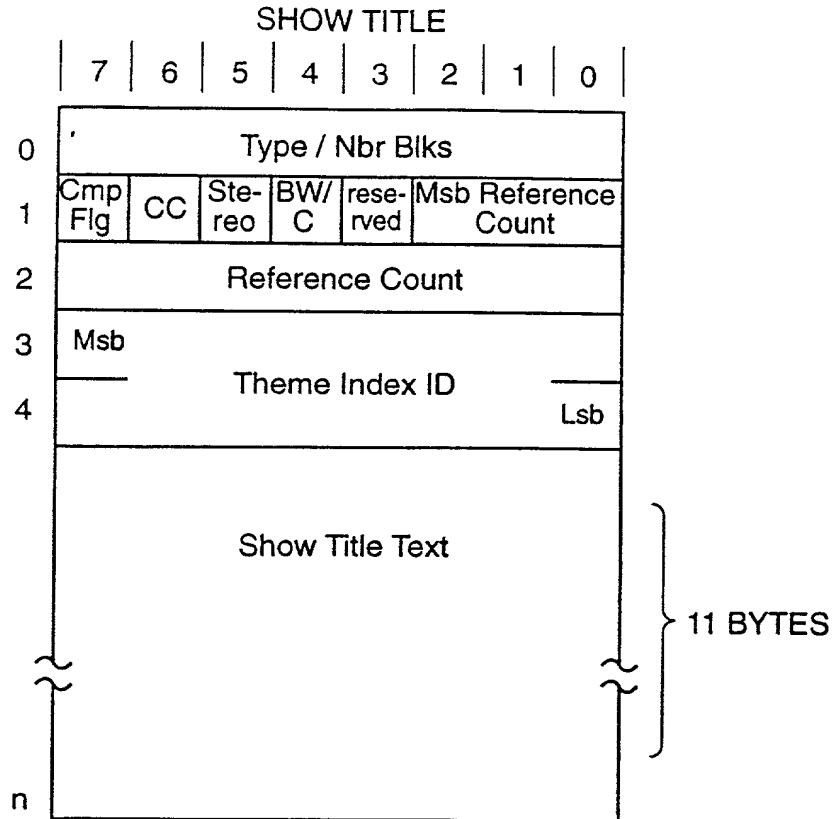
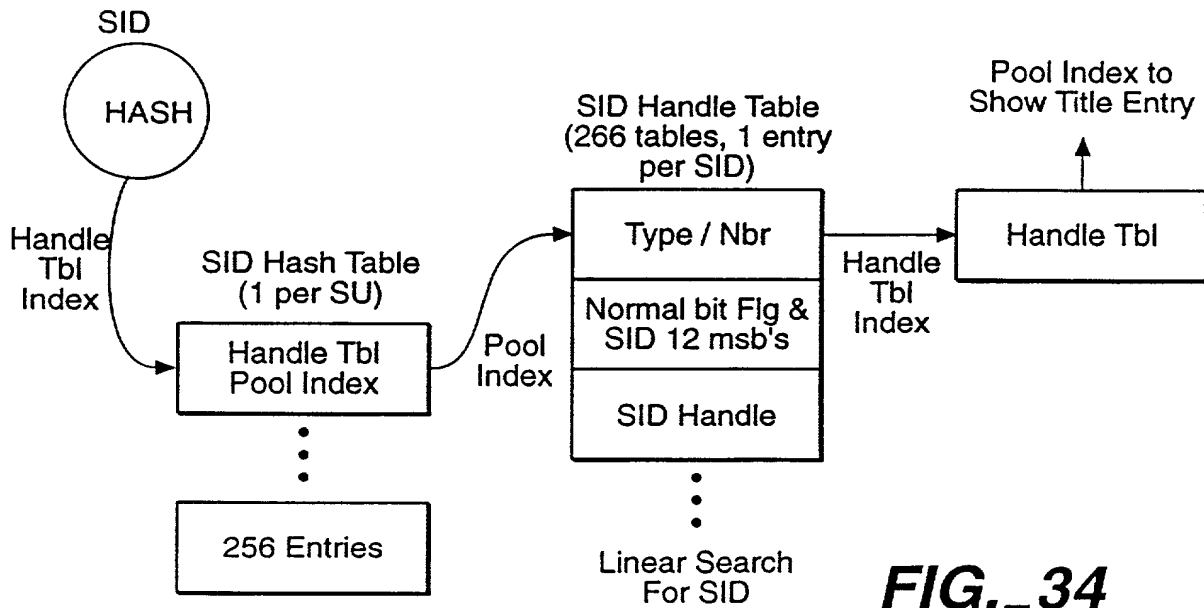
CHANNEL DUPLICATES TABLE

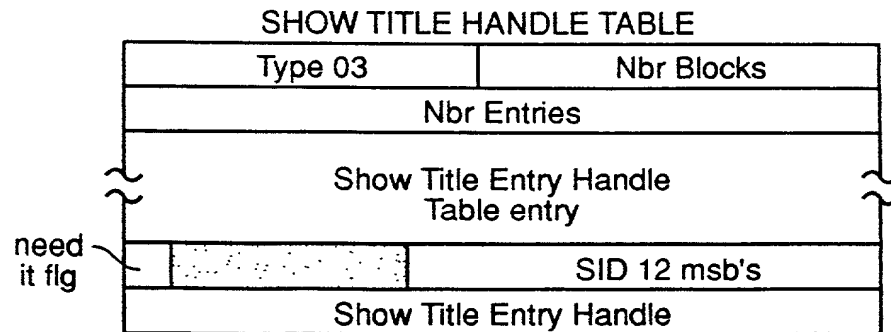
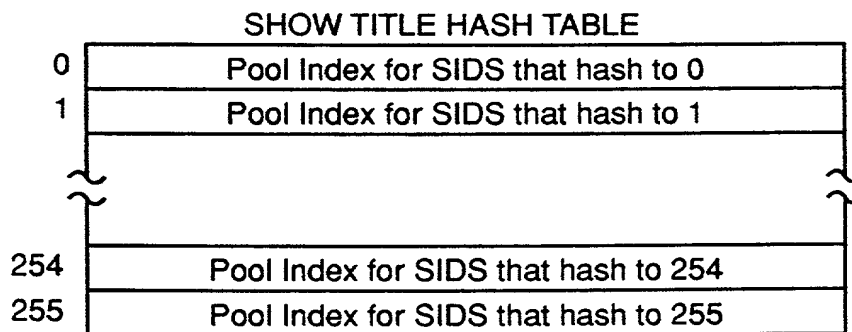
**FIG._30**

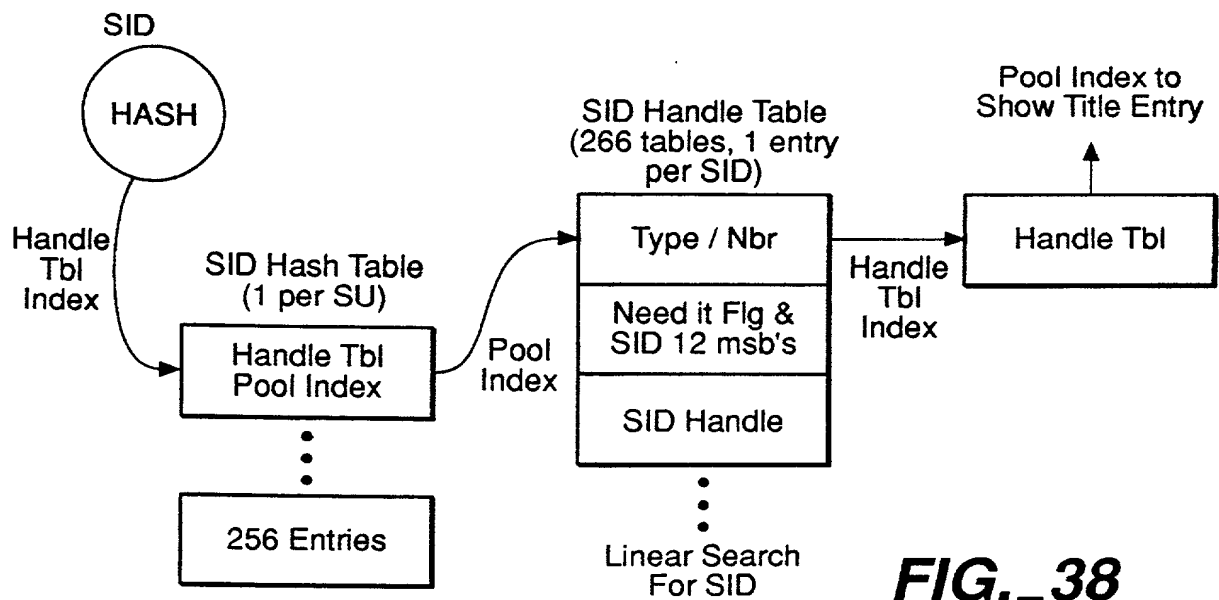
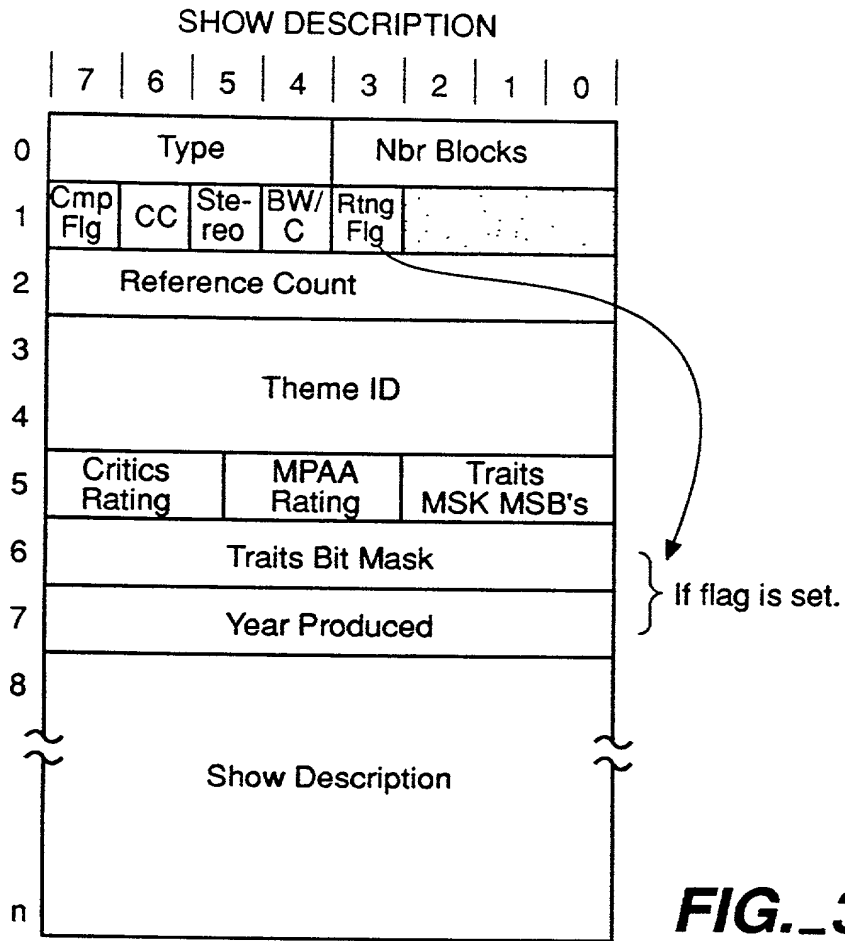
TYPE / NBR BLOCKS
REFERENCE COUNT
MONDAY SHOW LIST HANDLE
TUESDAY SHOW LIST HANDLE
WEDNESDAY SHOW LIST HANDLE
THURSDAY SHOW LIST HANDLE
FRIDAY SHOW LIST HANDLE
SATURDAY SHOW LIST HANDLE
SUNDAY SHOW LIST HANDLE

FIG._31

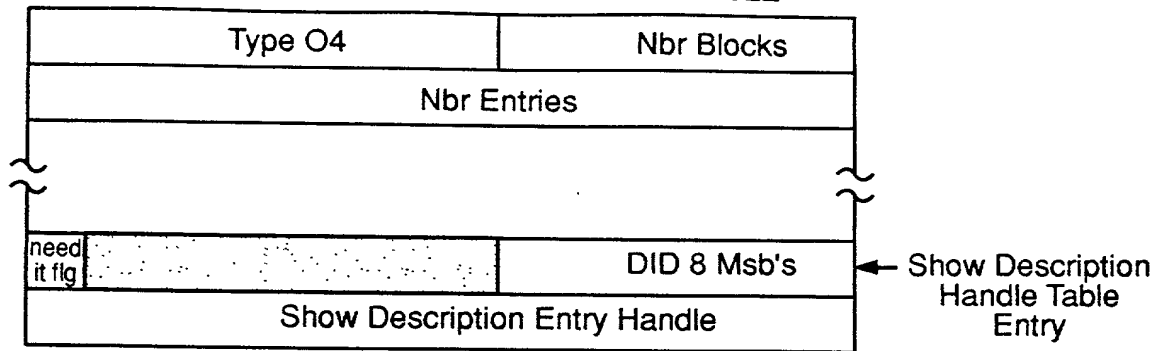


**FIG. 33****FIG. 34**

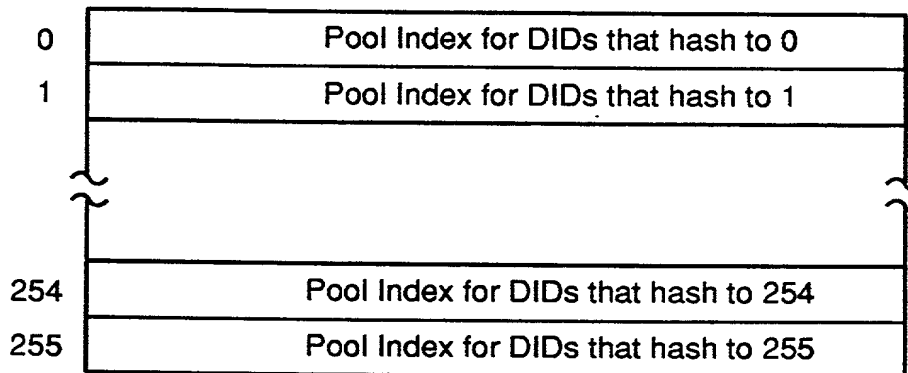
**FIG._35****FIG._36**



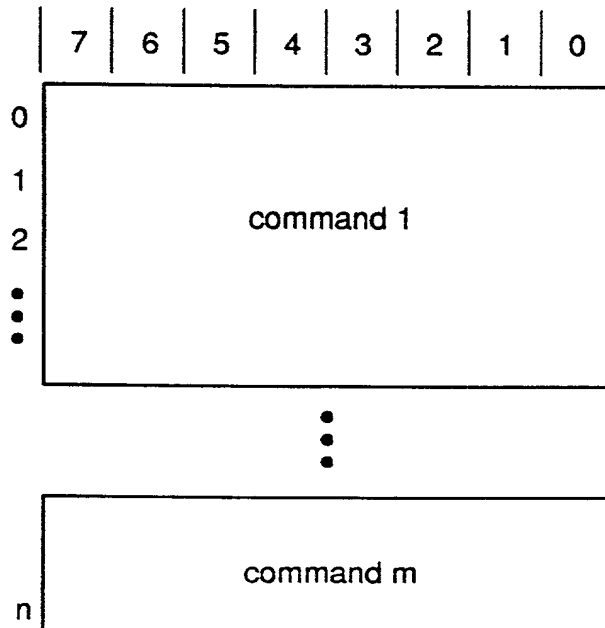
SHOW DESCRIPTION HANDLE TABLE

**FIG._39**

SHOW DESCRIPTION HASH TABLE

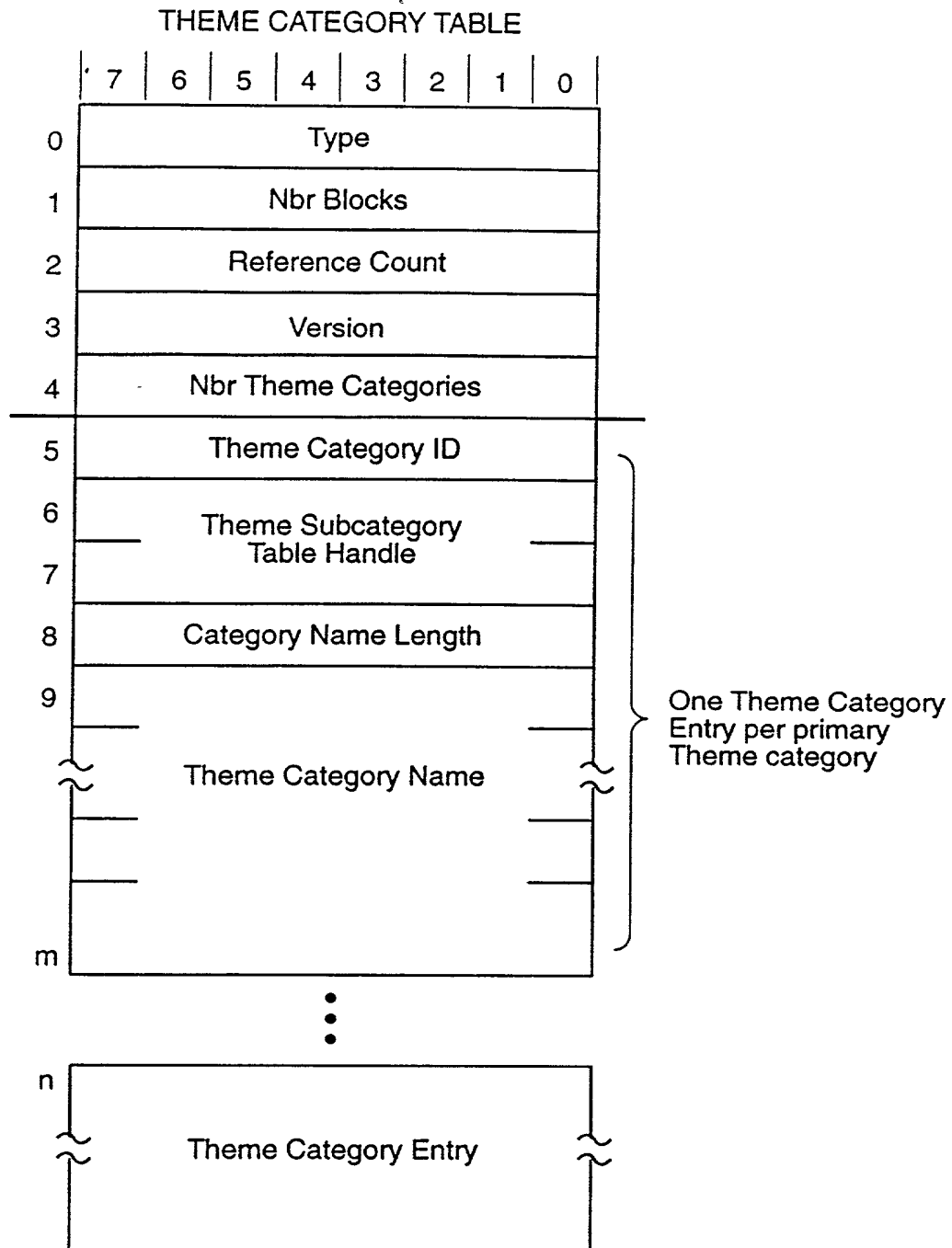
**FIG._40**

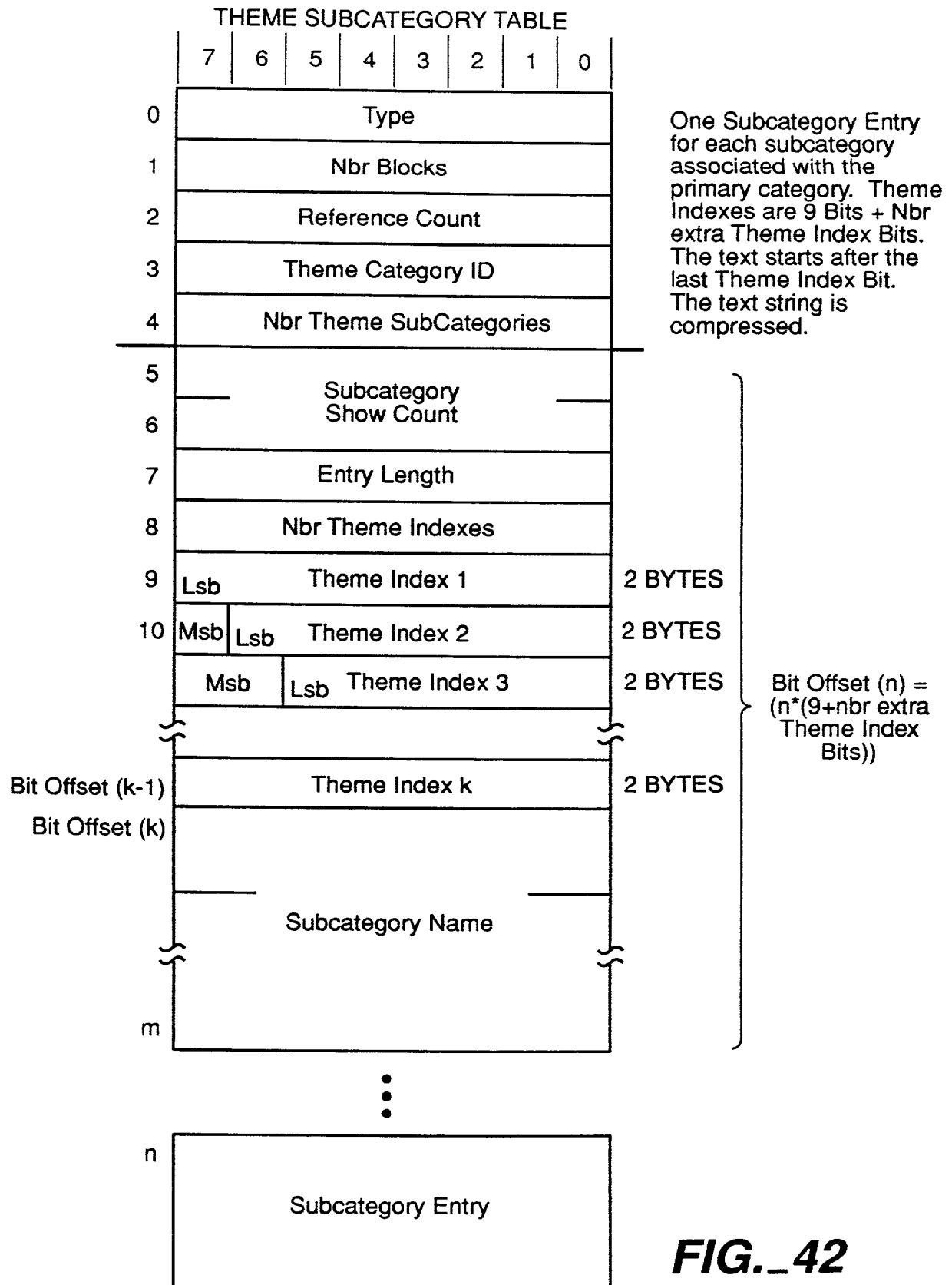
I / O PROCESSOR COMMAND PACKET



Packet lengths will never exceed 512 bytes.

FIG._43

**FIG._41**

**FIG._42**

DRAW RECTANGLE

	7	6	5	4	3	2	1	0
0			Cmd type					
1	shadow width				shadow height			
2	shadow color 1				shadow color 2			
3	small font delta X				small font delta Y			
4	large font delta X							
5	large font delta Y							
6	highlight 1				highlight 2			
7	underline 11				underline 12			
8	underline 21				underline 22			

FIG._44

ERASE SCREEN

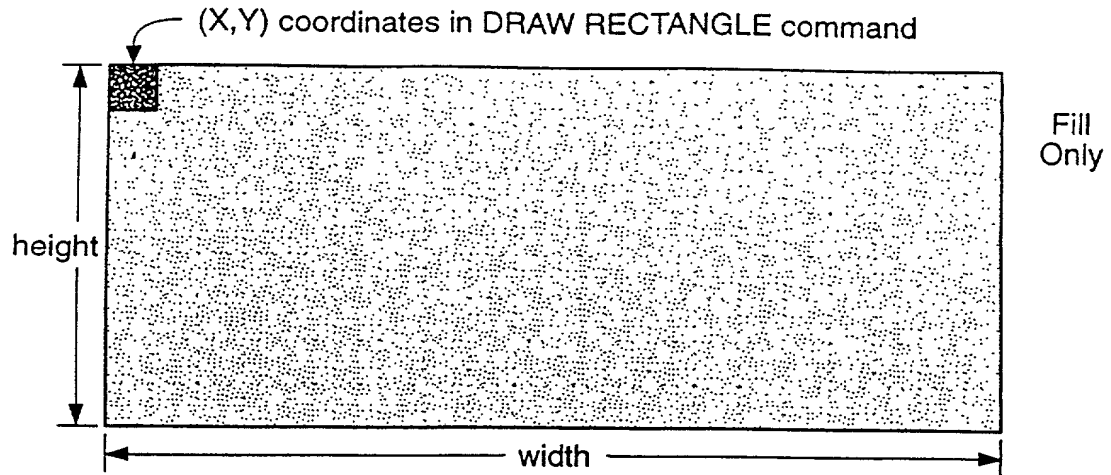
	7	6	5	4	3	2	1	0
0	Cmd type							
1	xpar color							

FIG._45

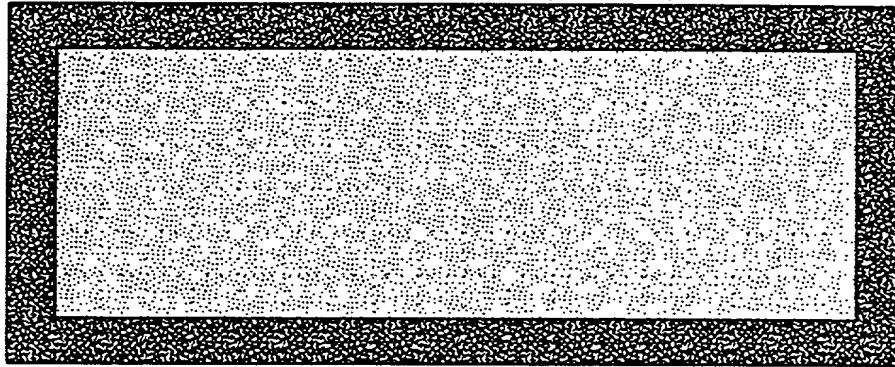
DRAW RECTANGLE

	7	6	5	4	3	2	1	0
0	Cmd type							
1	upper left X							
2	upper left Y							
3	width							
4	height							
5	fill color 1				fill color 2			
6	outline color 1				outline color 2			
7	fill	out-line	sha-dow	em-boss				

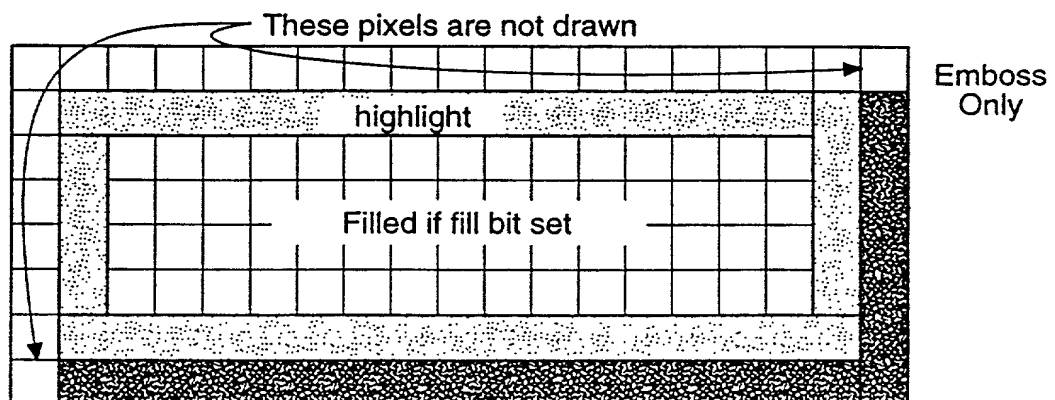
FIG._46

**FIG._47A**

Fill and Outline
(outline is one pixel high / wide)

**FIG._47B**

(highlight and undrlines are one pixel high / wide)

**FIG._47C**

Outline, Fill, and Emboss

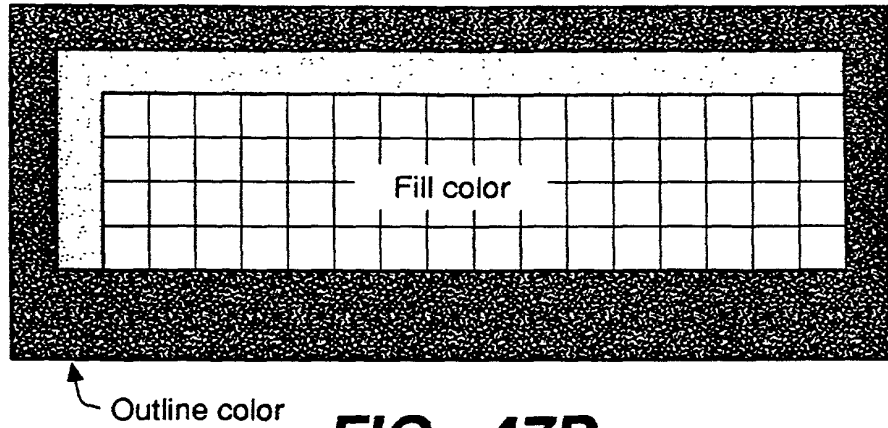


FIG._47D

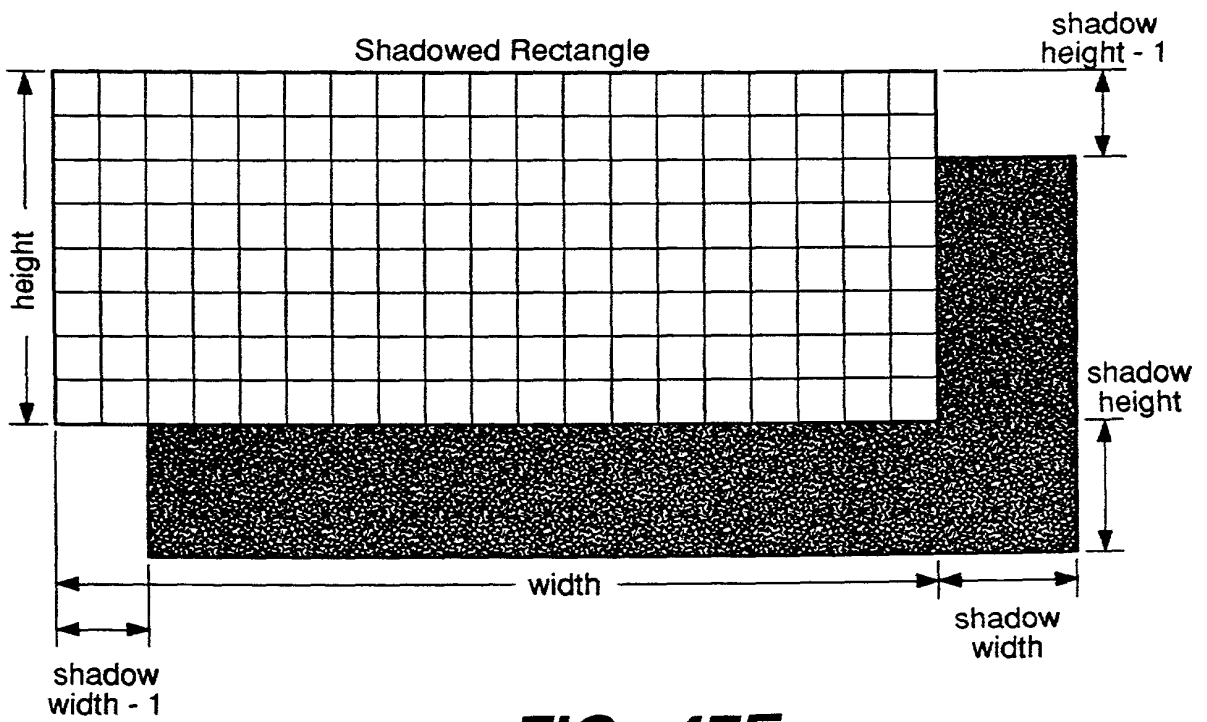


FIG._47E

SAVE RECTANGLE								
	7	6	5	4	3	2	1	0
0			Cmd type					
1	upper left X							
2	upper left Y							
3	width							
4	height							
5					pop-up ID			

FIG._48

RESTORE RECTANGLE									
	7	6	5	4	3	2	1	0	
0			Cmd type						
1	upper left X								
2	upper left Y								
3	save				pop-up ID				

FIG._49

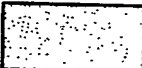
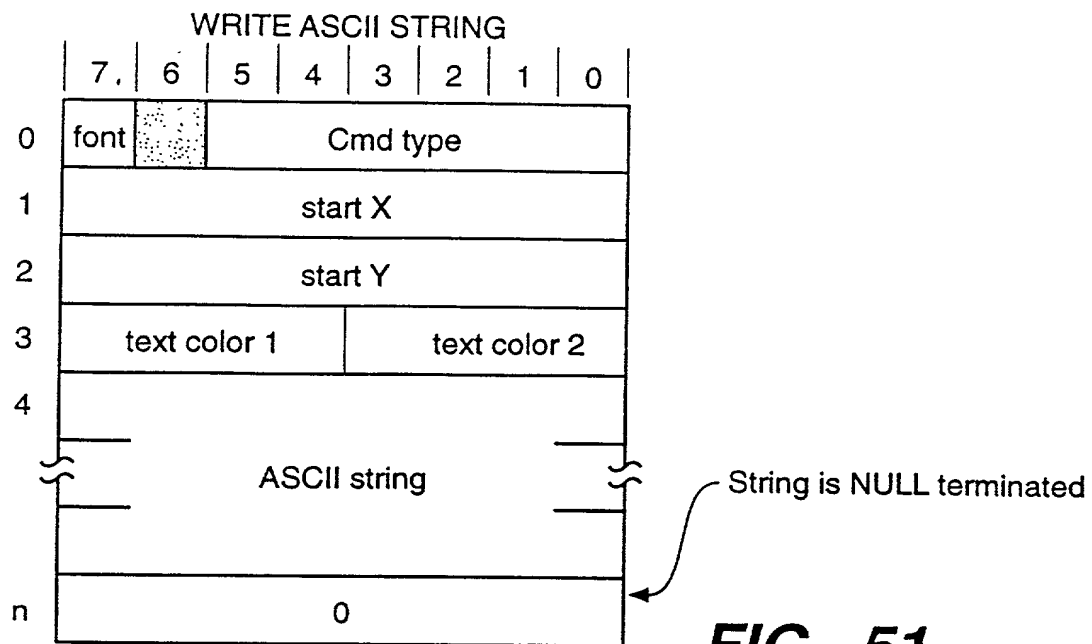
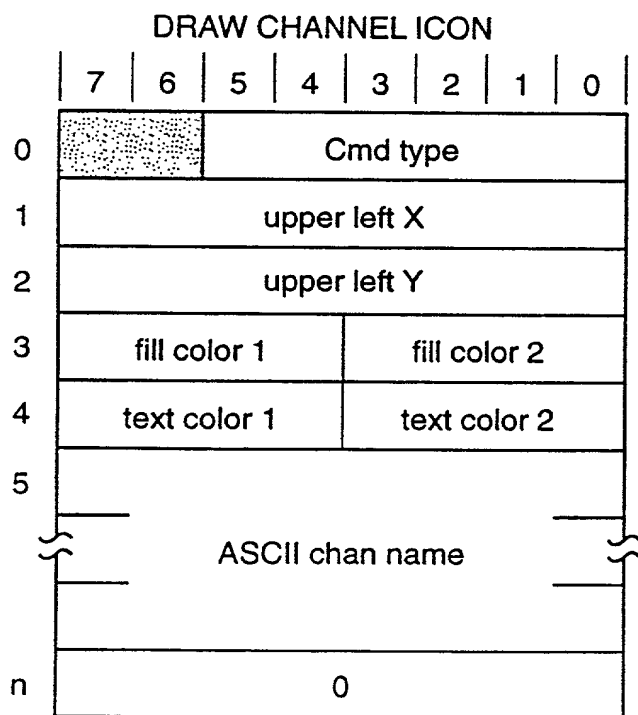
MOVE RECTANGLE VERTICALLY								
	7	6	5	4	3	2	1	0
0			Cmd type					
1	upper left X							
2	upper left Y							
3	width							
4	height							
5	scroll size							
6	delay							

FIG._50

**FIG._51****FIG._52**

CHANNEL ICON WHEN TEXT STRING = 1 OR 2 CHARACTERS
 (X,Y) in Draw Channel icon command

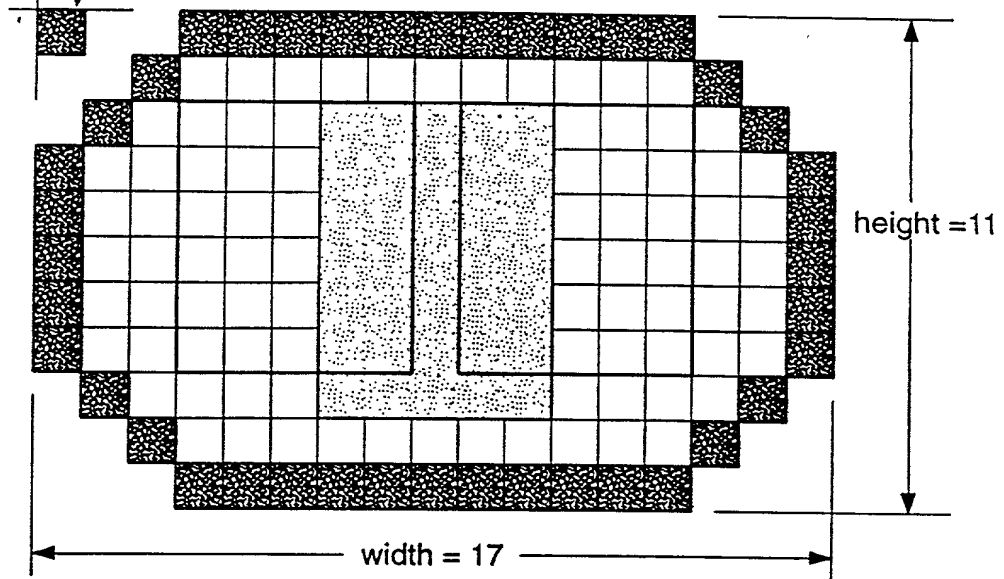


FIG._53A

CHANNEL ICON WHEN TEXT STRING = 3 CHARACTERS

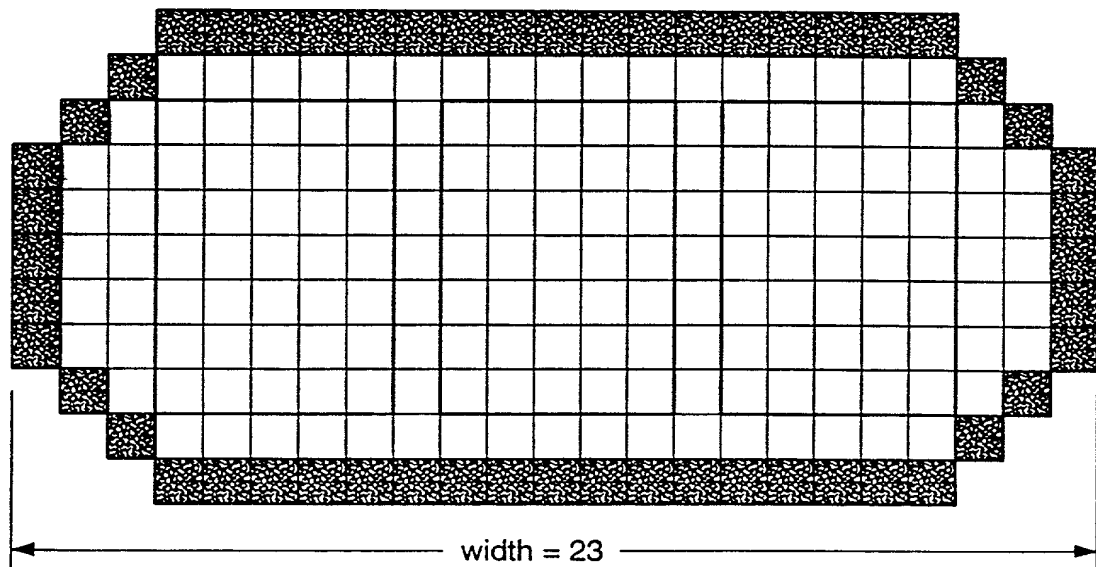


FIG._53B

CHANNEL ICON WHEN TEXT STRING = 4 CHARACTERS

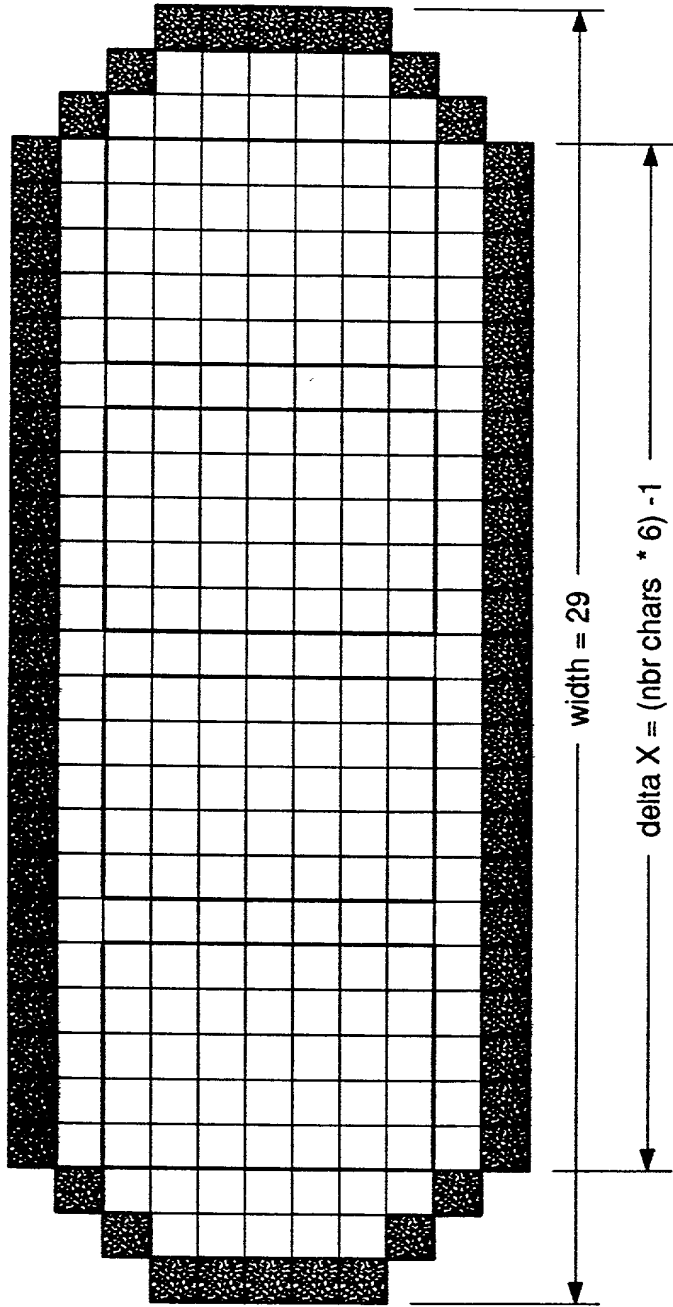


FIG._53C

DISABLE TRANSPARENT COLOR

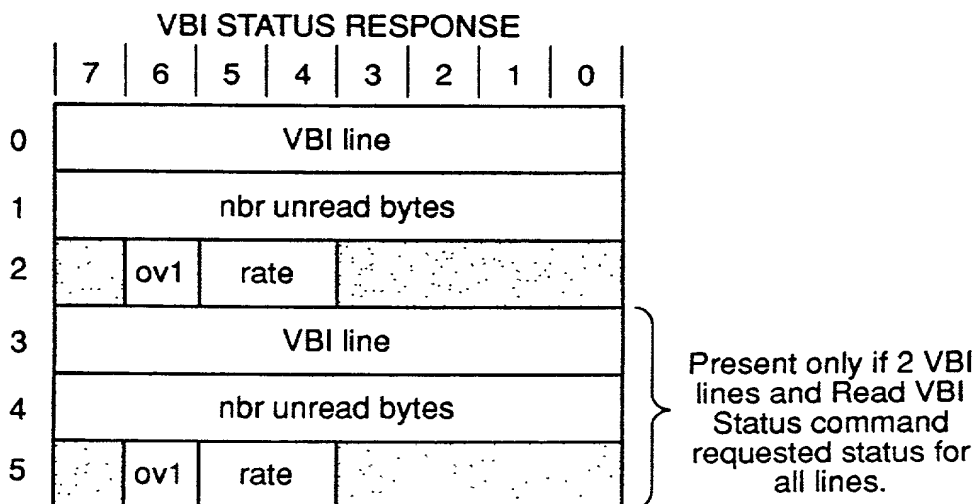
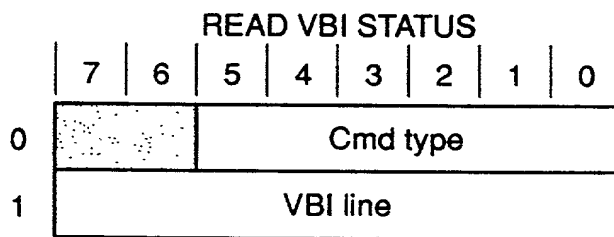
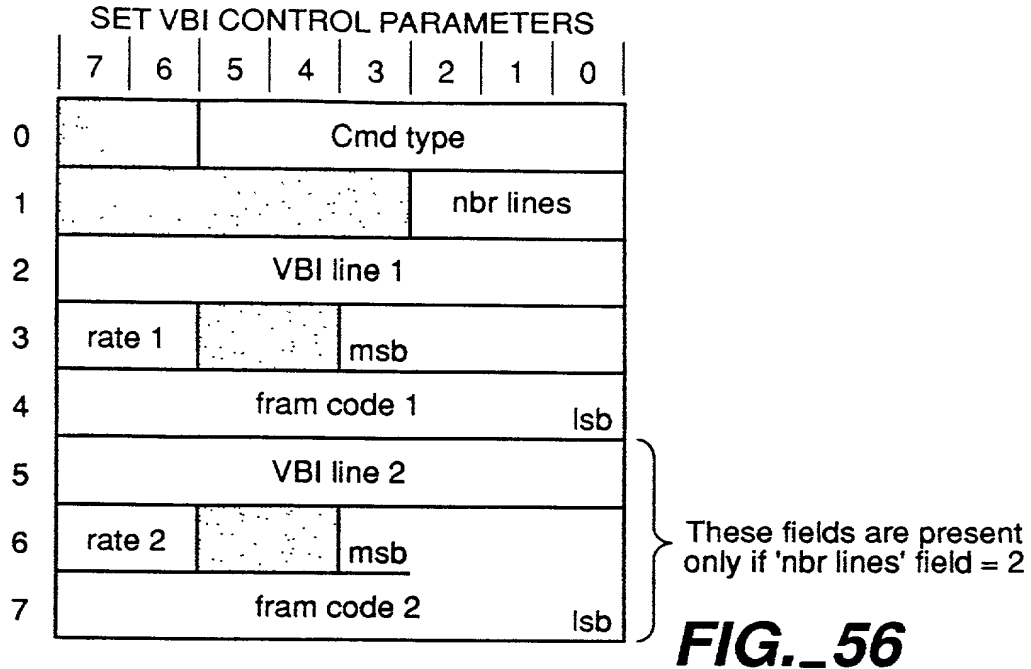
7	6	5	4	3	2	1	0
Cmd type							

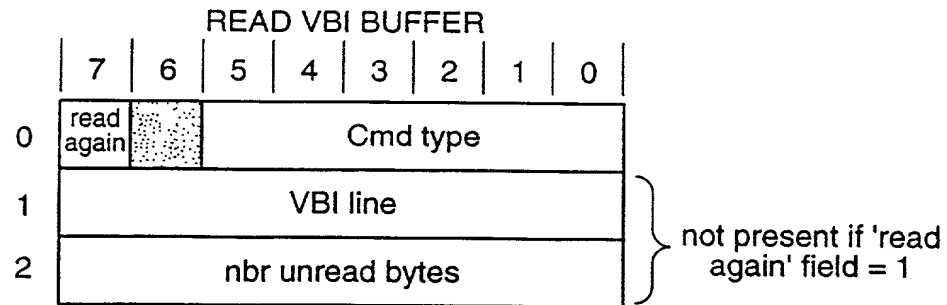
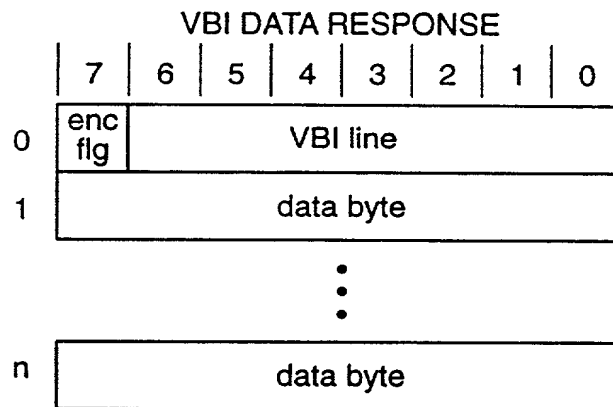
STOP VBI

7	6	5	4	3	2	1	0
Cmd type							

FIG._54

FIG._55



**FIG._59****FIG._60**